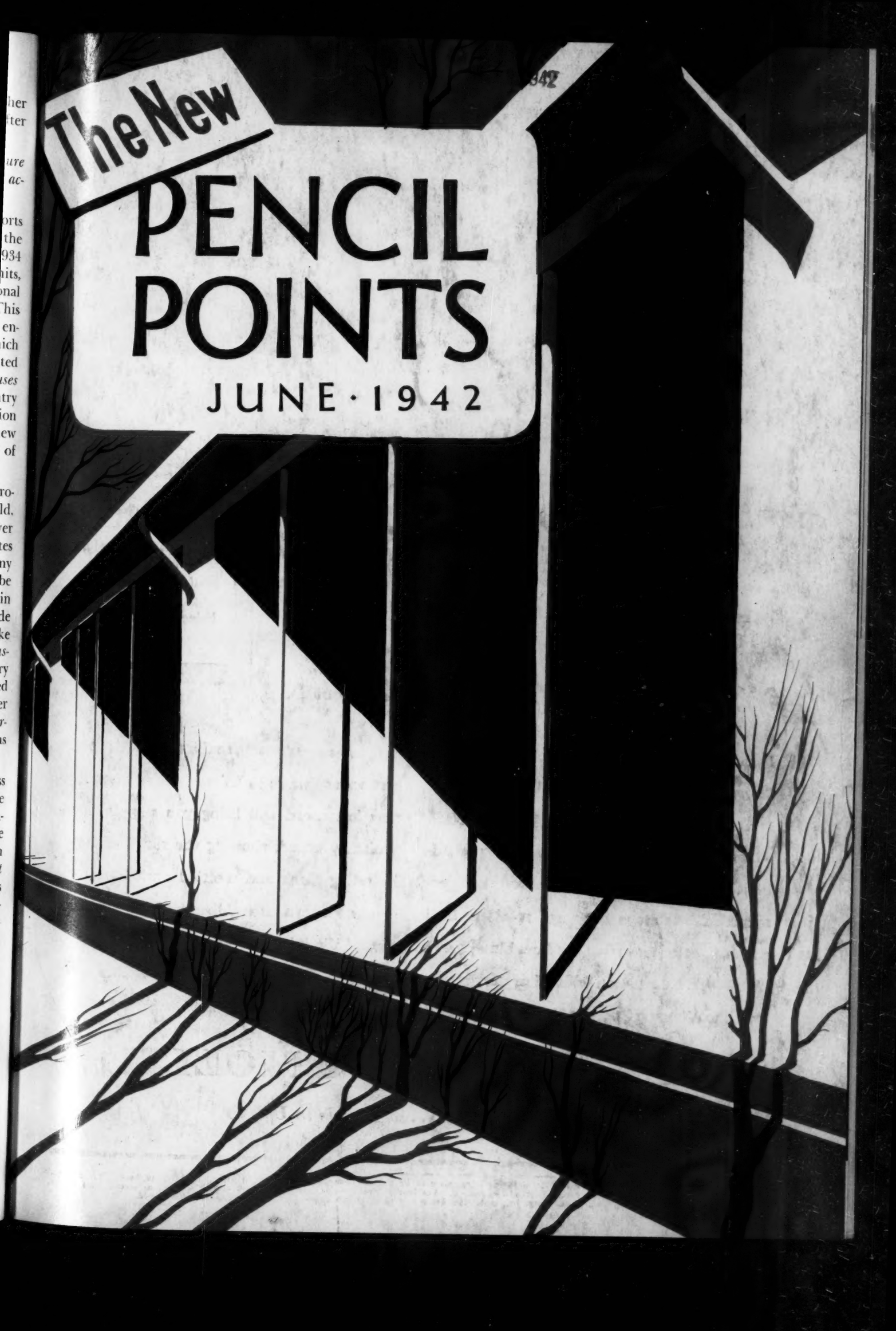
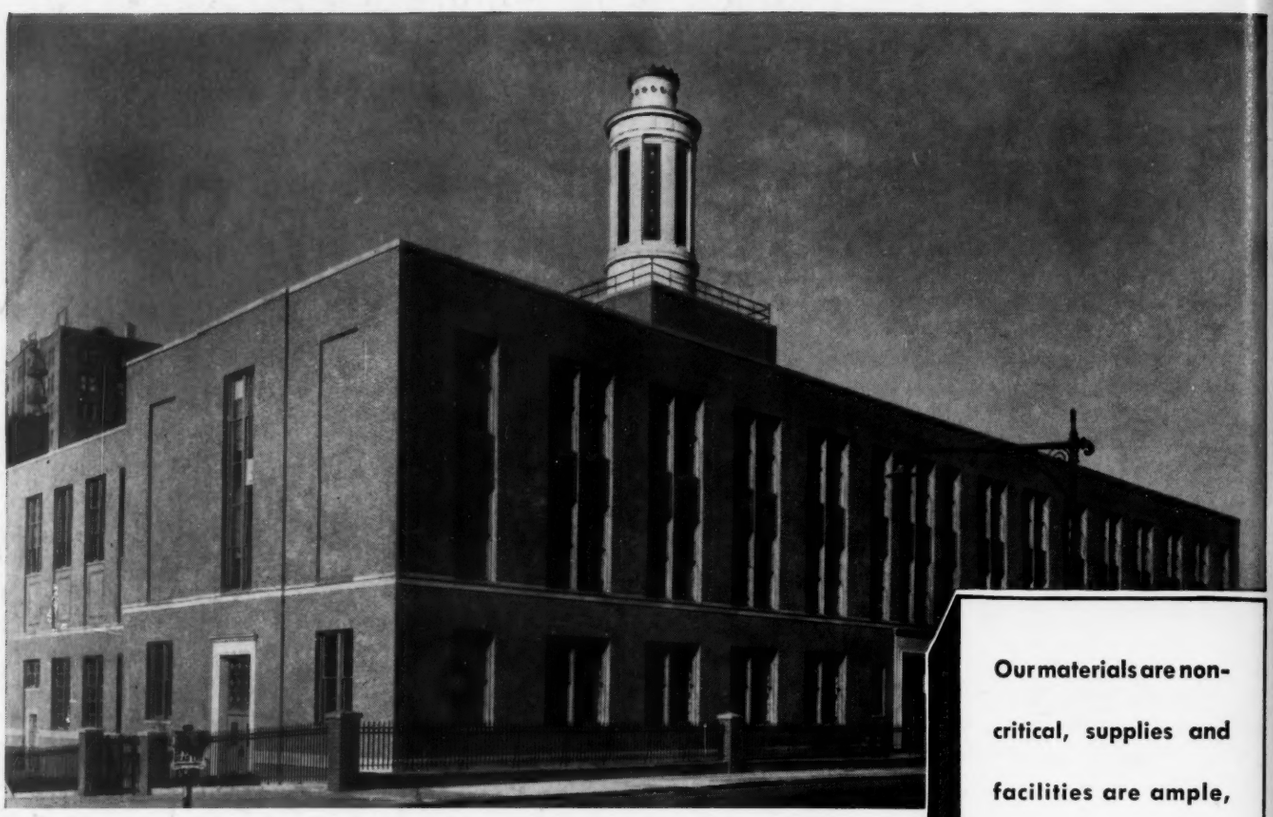

The New
PENCIL
POINTS
JUNE · 1942



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The New PENCIL POINTS

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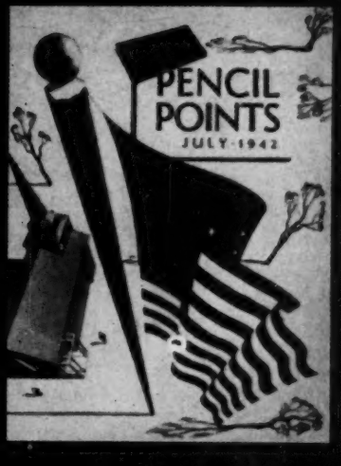
NEXT MONTH

Assorting the dozens of wartime housing projects springing up over the country, the Editors have elected to discuss factually two outstanding examples in the July issue. "Acquackanonk" or "Clifton Homes" by Henry S. Churchill, is one war workers community chosen; and "Elm Haven" by Douglas Orr and R. W. Foote, is the second — a slum clearance project that, under pressure of the times, has also been opened to war factory employes. ● Latest results of experiments with factory-built houses will be graphically reported from the TVA domain, where some of the best designs in the field were produced earliest. These are beginning to exhibit characteristics that surprise even their creators. ● The unusual small church that inspired the July cover design (right) is featured among examples of the work of Pietro Belluschi of A. E. Doyle & Associate, Portland, Oregon, comprising a second pictorial section. ● Of the moment are the Tarrant County Health Center by Preston M. Geren, Fort Worth, Texas, and also an Eye Center by Schaeffer & Hooton, of Bloomington, Illinois, in the same issue.



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W E B E L I E V E

We believe that a finer civilization lies ahead if plans are made as courageous as they are feasible, as strong as they are beautiful.

The greatest expansion and rebuilding program ever known will be a major activity of the post-war world. This involves an urgent task which *challenges the imagination* of every planner and which will call upon the skill and strength and resources of all humanity for its performance.

We believe Architecture to be an essential Service to human society and regard the true Architect as one dedicated to that Service.

For *planning* the inevitable development and rehabilitation of urban and rural regions and communities, and for *designing* the housing, schools, hospitals, airports, laboratories, and all manner of buildings that will be needed for them, for enlisting and *coordinating* the collaborative contributions of engineers, interior designers, landscape architects, sculptors, painters, and decorators, *the Architectural Man is best fitted.*

We believe that in whatever social and economic frame the Architect of Tomorrow will apply his distinctive talents, he will find both opportunity and appreciation.

We are living in a time of world-wide revolution. No man can predict surely the outcome or picture clearly the eventual forms of human organization. But we can be sure that building and rebuilding will be a most pressing need.

We believe it the Architect's responsibility to keep *at least* abreast of reality by regular conscientious study of technical advances and social and economic changes.

Changes in the technology of building, evolution in planning requirements, and developing community pressures constitute *a challenge that must be met* by the Architectural Man. If he fails to be continually aware of and accurately informed about these things he is *not only shirking his professional duty* but *contributing to his own elimination.*

We believe the time has come when the Architect must stop waiting amiably for others to bid him perform and become more than ever the vital initiating force.

The Architectural Man should see, *before anyone else*, the planning needs of his community and by persistent aggressive action secure their recognition by authority and their eventual satisfaction. As *Architect-Leader-Citizen* he must lead the way to the intensive improvement of man's environment.

We believe that FITNESS, STRENGTH, AND BEAUTY are eternally essential ingredients of Architecture.

There have been many sad lapses through the years from the principles of "Commoditie, Firmenes, and Delight," so aptly identified by Sir Henry Wotton, but *their truth is as indisputable today* as when they were first applied, consciously or unconsciously, by the Master Builders of antiquity.

Reprinted By Request From The May Issue

REVEILLE OR TAPS?

With this issue we begin a new era in the career of this magazine. The mode of architectural practice, "styles," professional ideas—all have changed irrevocably within the lifetime of PENCIL POINTS. Frankly, our readers have changed too. And the Editors—determined to continue the service that has distinguished this magazine—have now rolled up their sleeves to tackle the new problems! Courage, acceptance of the new rules of the game, faith in the success of wise planning—all are weapons we must wield together.

Winning the War comes first in importance to every one of us. Those who are called upon, those who can help directly or indirectly, must do so. There is no higher responsibility today.

After the War will come peace—of some sort. It can take many forms—any of which will present problems at least as difficult to solve as those we are fumbling with now.

Architects as individuals, as groups, as a profession, are contributing heavily to the urgent building program. They will continue to do so. As individuals they will also serve as needed in the armed and technical forces of democracy.

But beyond these things lies a duty to society that must be performed. There must be formulated **clear objectives for a peace worth fighting for.** Plans must be made. The civilization that is to rise from the ashes of this one must not arrive accidently. It must be designed, and that design can only be a collaboration in which architects can have a vital part—if they are ready.

The job will not be done by those who think in terms of dinky little period houses, of real-estate subdivision, of ornate and blatant commercial buildings, of smug monuments recalling ancient glories and revealing present emptiness. It will be done by those who are awake and alive to the realities of today; those who are willing to look with clear and unprejudiced eye at the power age in which science and technology are expanding horizons and transforming ways of life at breakneck speed; those who can understand that the only valid limiting factors of the future are material resources, processes, and the energies and ideas of people—not money and bookkeeping.

ON THE EVE of meetings this month at Detroit (which may turn out to be "just another Convention," or could be the first real constructive national gathering of the architectural profession) PENCIL POINTS presents on the following pages a group of serious discussions of subjects to be dealt with out there. They are provocative. They were written by vigorous-minded architects and planners—led by **Ralph T. Walker,** and comprising **Roland Wank, Walter Curt Behrendt, Clarence Stein, Arthur C. Holden, Leopold Arnaud, Willis A. Vogel,** and **A. D. Taylor.**

We urge that you read them. These are not times to maintain that deliberately illiterate pose assumed by those architects who confine their reading to a mere scanning of pictures and captions. These are times when men of brains must wake up and read and study and ponder as never before. There must be **discussion,** there must be **controversy,** there must be **productive thinking,** before there can be planning. So read, and if you disagree with our distinguished authors let us have it with both barrels. If you agree, work for what you believe in. But for the love of America, develop some passion for its future!

Kenneth Reid

THE

BY *Willis A. Vogel*

Vice President of Toledo Chapter, A.I.A., and of the Architects Society of Ohio, stationed in Washington by PENCIL POINTS to serve Architects by advocating their employment in the War Effort.

Your Technical Personnel Adviser came to Washington thoroughly convinced of the architectural man's manifold skills and of his adaptability. Experience of the past two months and a half justifies that confidence in many instances but emphasizes the necessity for yet a large number of architects to become acquainted with their own strength—and weaknesses. In these times of rapid change, **the architect must be willing to fit himself in wherever he can and to do the things that need to be done.**

I am glad to report that progress continues to be made in the placement of architects in real jobs in the Victory effort. To give exact tabulated figures at this time is not possible, but indications and a general check show that we may fairly estimate over 200 actual assignments. There is sufficient evidence to prove that the effort of salesmanship (if the term be permitted) in presenting the architect and his technical talents will continue to pay dividends and to get results.

That part of my work which consists of persuading lay and military officials that architectural men have basic training and habits of thought that make them quickly adaptable for various kinds of planning, coordinating, and administrative jobs, or for such functions as procurement, inspection, etc., produces intangible results which are nevertheless greatly to the benefit of the profession.

I have contacted high executives and placement officers in practically every department of the Federal Government into whose activities architects might fit. I have supplied them in the aggregate with many hundreds of names from our available list. Not every one of these names has been acted upon, but there are enough who have been approached or hired to more than justify the activity.

As effective reorganization and decentralization goes on, the general policy is to retain in Washington the overall administration of each agency and to assign the detailed execution of its program to regional centers. Regionalization facilitates efficient placement of men to work in war activities nearest their homes.

The draft registration of older men, the organization of the new Man Power Commission, the opening up to civilians of the Army Specialist Corps, the increasing use of the Roster of Scientific and Specialized Personnel, the broadened Civil Service with unassembled examination, all show growing recognition of the shortage of technical skills foreseen by PENCIL POINTS and acted upon last February. Nothing has disturbed our faith that the architect, in general, is broad enough and versatile enough to fill a substantial part of this need. Let us, therefore, drive ahead and go at the appointed task, no matter in what capacity, even if at a hardship while we are in the War, until we complete the Victory Program.

HE ARCHITECT'S STATUS TODAY

BY R. L. Taylor

Town Planner, Landscape Architect, and Author, of Cleveland, Ohio, whose periodic Washington Reports have served to keep our readers in touch with Juggernaut's Progress since September, 1940.

IMMEDIATE NECESSITY

With the tempo of war activities rapidly accelerating, it is becoming increasingly evident that members of the Technical Planning Professions soon will have little or no work in their private offices, except such work as relates directly to the War Effort. This is already the fact in some parts of the country. There is no question about the immediate necessity for them to adjust their thinking!

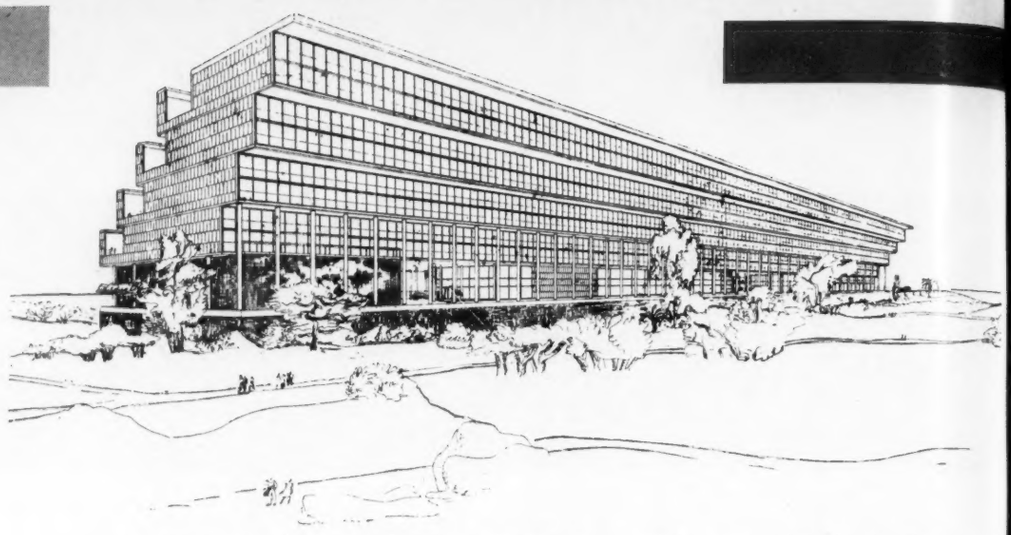
Signs of imperfect adjustment are readily found. It seems unfortunate, for instance, that there should be so much open competition between offices in private practice (and between Government agencies and some of these offices) for the services of qualified men; often expressed by procedures which, under normal conditions, would not be accepted as entirely ethical. Authorities in Washington recognize this condition, but have determined neither the extent nor the method of control.

Deferment Restricted. Technicians are asking about the possibility of deferment under the Selective Service Act, because of employment in war work. Unless such work is most vital to the war effort and unless the individual cannot be replaced there is little chance of deferment.

Housing For War Workers continues to gather momentum. The major part of this program seems to be confined to factory-fabricated housing (limited by the capacity of the manufacturers who are producing this type of dwelling unit), site-fabricated housing, and temporary dormitory type of housing. Unfortunately, in some locations the construction of housing for war workers is lagging behind the production schedule. The necessity for efficient planning and supervision to produce this housing in minimum time is **a challenge to the technical ability in the Planning Professions,** as well as to those charged with production.

The desire—the necessity—to produce the maximum area of shelter at minimum cost is responsible in part for a tendency to increase heavily the density of population in these housing projects. This has resulted in a dormitory type of structure (with the understanding that the greater part of this housing will be dismantled when the emergency passes), and there is every indication that the **need for this temporary housing type will continue to expand** with the development of major war production plants.

Specific Information of interest to the Technical Planning Professions can no longer be published, if it relates to vital war projects. But there is much that technicians can obtain and study.



PLANNING FOR THE PEACE

BY

of Voorhees, Walker, Foley and Smith, M.I.T.—1911, distinguished architect and F.A.I.A. whose work has included industrial cities, military bases, and imposing commercial and financial monuments.

THE war against the Axis will be won. But when the necessary military effort is over there will remain another and far more difficult war—the war against **want** and the unreasonable inequities in the distribution of our enormous resources. This latter war has been going on ever since the machine and its techniques of production first made it evident that the exploitation of our national wealth **could make a nation happy rather than just a few men rich.**

Our war effort against the Axis is the greatest ever made by mankind and, here in our United States, this effort will employ well over thirty millions of workers and soldiers. This enormous number of people must be finally re-employed in making a peace as effective as the war effort. These millions of people are therefore a great reserve of skills which can and must be used as a powerful force in creating a higher standard for living for our entire nation.

Meanwhile, however, practically all building has stopped. This means housing, all public works, all commercial building, and practically all industrial structures, all except those vitally needed to make war material. Soon these too will be completed.

Meanwhile, too, all consumers' goods, except the barest of necessities, are dropping out of the markets one by one—all the factors that lead supposedly to the superiority of the American way of life are being eliminated and the materials made into planes, guns, more planes, agents of destruction.

The after-war need for the re-employment of these millions, the continued stoppage of all building, the practical elimination of consumers' goods, will create a condition, unless guarded against, where a sudden helter-skelter desire will lead to a confusion of effort—all of course heightened by an all out advertising campaign directed against the "savings" of workers whose appetites have been frustrated so long.

These remarks might be stretched into many books, but the result indicated by all would be the necessity of planning, **the necessity of thinking for peace,** together with the realization that it is not only vital, but is a common-sense use of our effort and our resources. We have drifted—no, muddled—into war; let us not **muddle** into a possible promised land of peace ahead.

In the peace intervals during this century when it was possible to have well fed and properly housed a nation, and to have offered it security, at least fifty percent of our people have had so little of this world's goods as to have the right to question whether there is an "American standard of living."

Lack of planning has permitted the growth of the slum, the development of the large

blighted areas evident in every city large and small throughout the country. It has promoted the serious loss of the individual's responsibility in his community, and a parallel rise of mass irresponsibility.

The cities, instead of being places of good living, have become places where a mere existence is an experience made more narrow by the mass of ugly bricks and stone, the increasing number of vacant lots bare of vegetation, and the enlarging areas where buildings are plastered with "To Let" signs.

FOR THE FIRST TIME in relation to any war there has been a growing awareness of the need to create a goal of a better future, a future all thinking people believe possible under our abilities to produce. This is but one of many thousand present demands to plan for its accomplishment.

A good reception to post war planning will be increased in ratio to the length of the war, for as the war lengthens more and more intelligences will seek and demand a future more secure than the uncertain present in which we now live. Already groups like The Urban Land Institute, normally conservative, have made the first steps forward demanding the rehabilitation of urban land. The Urban Land Institute has published reports on blighted areas in New York, Philadelphia, Boston, Milwaukee, et al. Here is a paragraph from one of its broadsides:

"New modes of transportation and new ways of life have disjointed city growth and thrown our cities into disorder. Past methods of control over land utilization and past city planning practices have failed to break the shock of these changes or to bring the needed balance into city development. In many of our cities large sections have lost populations, suffered loss of business volume, become drab and decadent. Those who can are leaving the cities to such an extent that the growth of the suburbs in the past decades has been phenomenal. This attempt to escape the problems of the city has only intensified them. Today blight is a creeping sickness that every type of city must combat. Scattered ribbon development on the peripheries of our cities, unsupervised as it ordinarily is and frequently of a character inviting new slums and blight, will only spoil more land, necessarily increase governmental costs, and solve nothing. We need a new and more practical approach to the whole problem of replanning cities."

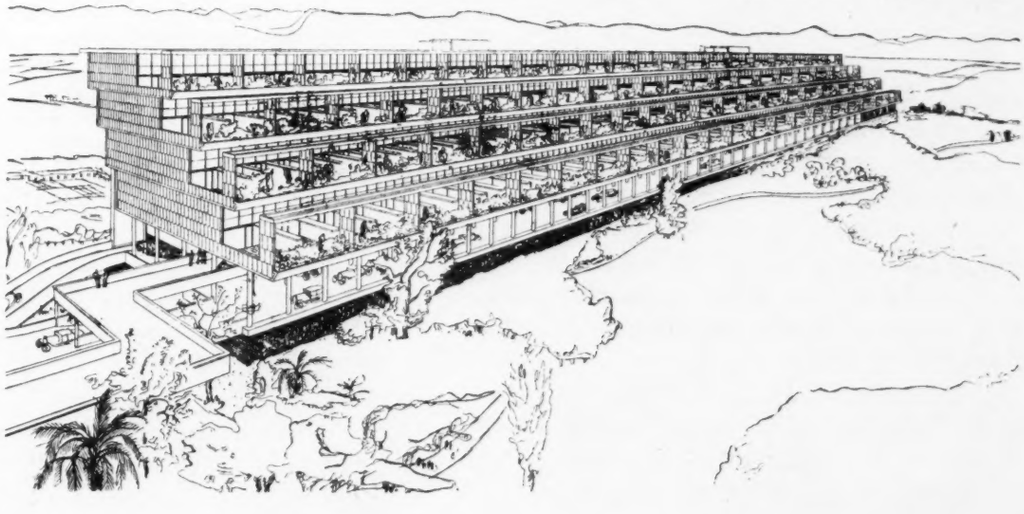
Also in a paper published by The Urban Land Institute, and written by Harland Bartholomew, the well known city planner from Cleveland, the following reason for this interest is noted:

"The presumably pleasant suburb of ten, or even five years ago is now quite a little way in from the latest suburban fringe. This explains why thirty-five to forty percent of the total area of our central cities is vacant. and has never been occupied. The close-in suburban fringe about every large city is fifty percent unoccupied and undeveloped. This percentage of unused land increases as the outermost suburban fringe is approached."

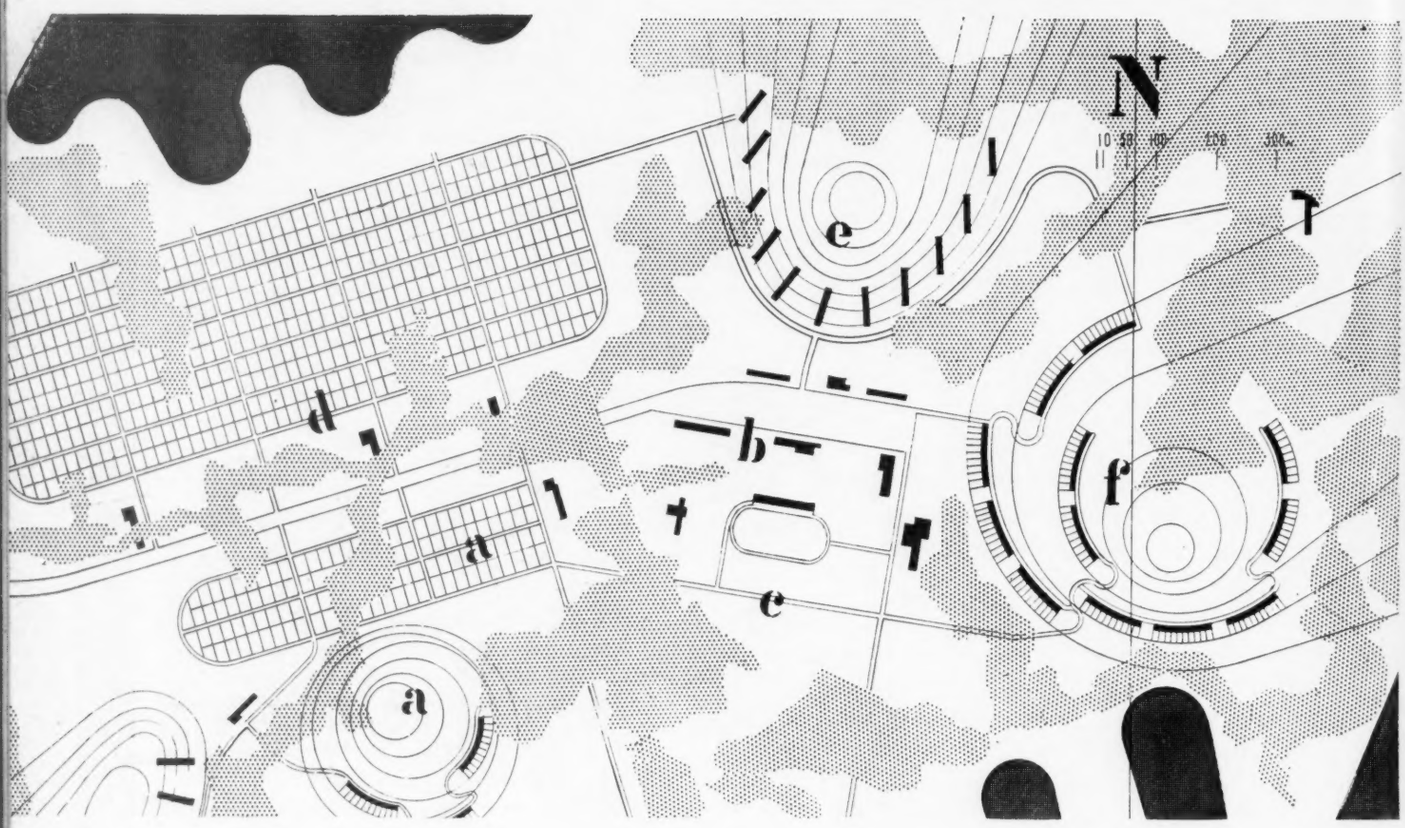
There are times when I wonder why we weep for the land unused for buildings, and why we do not weep that it does not have a natural use for beauty and recreation.

THE CITIES NEED PLANNERS—men who will see the necessity of devoting their attention and gifts and lives to the promotion and the attainment of better living conditions in city and country. This is impor-

CORBUSIER—Find the citizen. A hive of the irresponsible. Shelved community ready to swarm to the charms of a Hitler. "Stupendous Megalomania"



AALTO—Disintegration of community form. Might be a mobile by Calder. Cubist relations rather than life



tant to us, for planning these betterments lies within the abilities of the architect.

There is no mystery to planning. The only mystery lies in the stupidity of man's careless acceptance of disorder when, with only a little less inertia on the part of our people, he can achieve the charm and directness of early New England towns.

For planning means a straight-forward use of land for the benefit of all, an imposition of the discipline of a social ideal on the erratic forces of speculation so that profits may not be made, as they have, on the creation of slums and blighted areas.

Planning does not mean putting things on paper. It means growth. It means supervision, because planning without the power of enforcement results in frustration. The obsolescence found in our cities needs more than rehabilitation. It needs an understanding of the need of a new urban flexibility.

The ideal of an orderly society comes to fruit only through an understanding of changing trends.

The more you study the history of urban growth the more you are aware that the life of a city is being constantly influenced by the thoughts and reactions of the times. The job of the planner is first to understand these forces and then to control them.

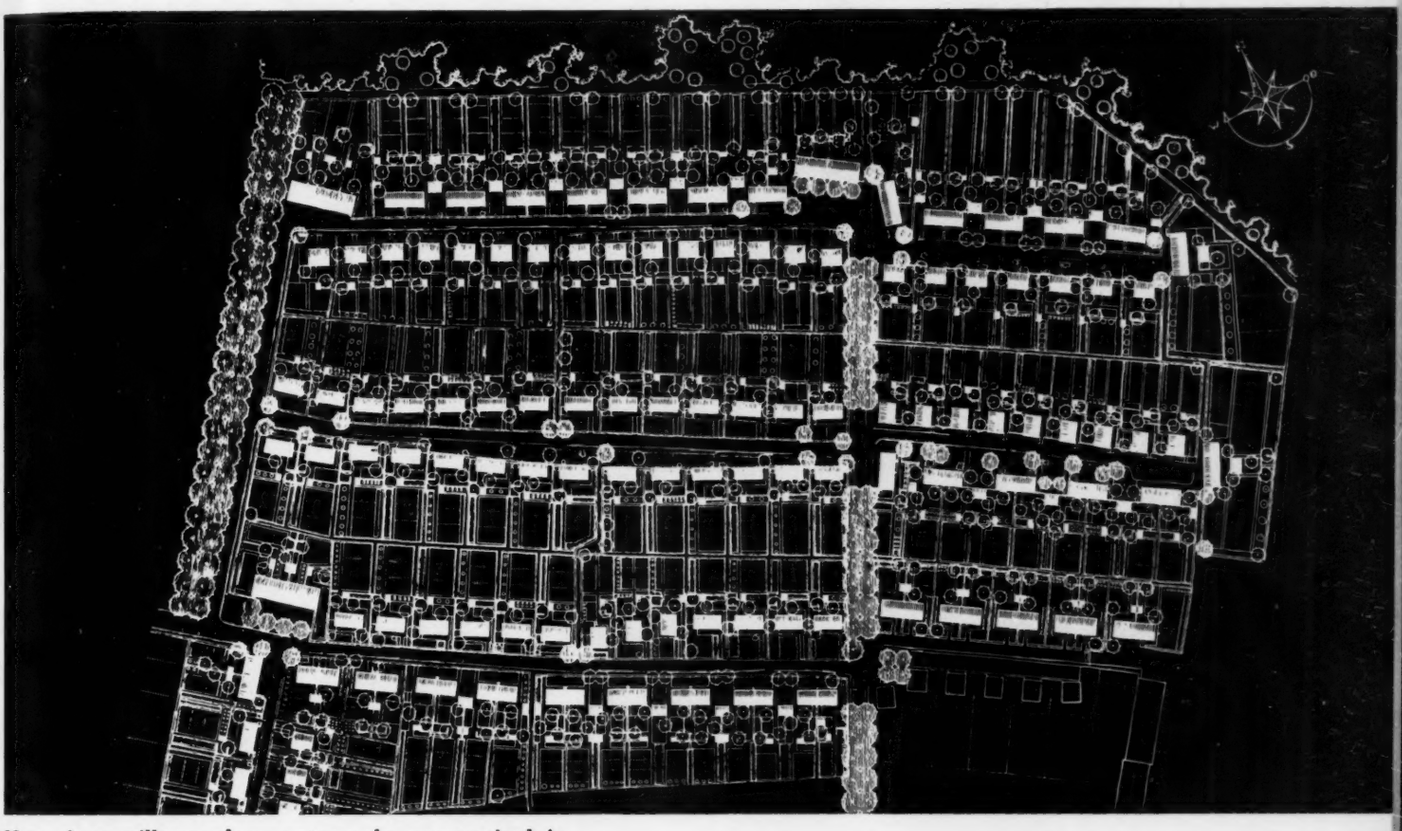
These are jobs we architects can do now in planning for the peace after the war:

1. **Talk about and insist upon the need.**
2. **Insist that The American Institute of Architects take a positive stand for a better society — for the leadership of the architectural profession in the planning of the peace time. This is a matter for a national effort because the work will be done under the central direction of the Federal Government.**
3. **Insist that The American Institute of Architects help promote and back up Federal legislation for a public work reserve, rehabilitation subsidies, and other proposals for the present planning of future needs. If pressure is needed the Institute should organize it.**

The individual architect should:

1. **Insist on replanning the slum and blighted areas of the city in which he lives.**
2. **Study the relation of the city to its immediate region, attain dispersion in contrast to congestion.**
3. **Help the engineers plan roads and streets so as to develop communities and plan communities so as to reduce the absurd, terrible toll that America pays each year in automobile accidents.**

VILLAGE IN SAXONY. Modern thinking does not necessarily breed ugliness. This plan provides amenity



Here is a village plan, extremely economical in utility layout, each house spaced on the amount of land the family can easily manage. Each family is surrounded by all the amenities of a possible vital community life in which it maintains its own individuality. Such a community separated by green playing fields from its neighbors, insulated by other green areas from super-speed highways, would be a place where normal life might be lived

4. **Plan communities for democratic living and not for speculation—citizen communities, not builder communities.**
5. **Plan the necessary good housing.**
6. **Plan the needed public works—hospitals, clinics, schools.**

Things architects can do to help clear the way for the planning of specific projects.

1. **Review building codes and help organize them so as to make them flexible.**
2. **The individual architect can easily show the absurdity of most zoning ordinances, especially in relation to the size of areas devoted to business and to multiple story living. Again quoting Harland Bartholomew, in the paper published by The Urban Land Institute: "Broadly speaking, the great majority of people seek a single family home with a certain amount of ground around it, with trees, grass and flowers, so located that the open country lies to one side and the city on the other. Thus we reason that we can daily leave behind the city with its smoke, noise and congestion, and live on the edge of pleasant open spaces."**
3. **Study local city government and help replan the overlapping municipalities that exist in all our cities. Work with other social-minded groups.**

Remember! In the architect lies the imagination, the ability, and the knowledge to plan a humane civilization—one that will result in an urbanism that is not made of slum mindedness and blighted lands.

Do not be afraid to appear radical. The airplane will make all past revolutions in city design seem pale in comparison.

The time for post war planning ist now and not after the war. The nation drifted into this, and all our other wars, unprepared, and has built our cities so unplanned that slums and blight have cost us more than if we had used the planning ability we possess.

Order is less expensive than chaos.

Study planning—talk planning.

Talk communities—insist on better ones.

TIME TO CHOOSE OUR D

PLANNING OR DISINTEGRATION?

BY Roland A. Wank

TVA Chief Architect since 1933. A native of Budapest, he was trained before World War I and rose to be Chief Architect of an international construction firm before coming to America in the Early 20's.

NO, this is not a discussion to define planning. Nor to classify it as social, physical, and so forth. Let's assume that planning means just what it says, and that like war or peace it is all-inclusive, indivisible and world-wide. And let's also assume that these tough years have hammered into us awareness of its utter necessity. To survive as a nation, we adopted — although with reluctance — wholesale directive planning for the duration, its branches spreading over every department of life.

But what about the roots? We accepted planning because for once we had a powerful and united will and purpose: to survive. But how about our mental reservations? And how much purpose will we have left when survival appears assured at the conclusion of a victorious war—and I use "appears" advisedly.

Whatever it is we are fighting for, it isn't a world status quo. One cannot fight for the memory of something that has gone forever. Something that disappeared when vanquished millions were starved, chased or kidnapped off the maps of their countries; when industrial plants and traditions were transplanted en masse to the victors; when invention and industrialization swept feverishly into brand-new or placidly backward fields of production and into traditionally primitive countries; when empires, institutions, habits and loyalties crashed around the globe. **This time the future can neither be reestablished in the image of the past, nor safely left to happy accident.** The accidents are not likely to be happy. Mankind, having struggled since the stone age toward conscious direction of its destiny, today confronts the staggering necessity to do just that, **now.** The tools are here, at last—chaos and death are the penalties of failure.

TVA

Striking example of municipal planning is the town and harbor at Guntersville, Alabama. Petroleum products, grain, and other commodities now reach Guntersville and the adjacent area by water

UR DESTINY

Our reluctance may be explained by psychologists who have a name for the terror of facing up to the future and for the soothing solace of the past, familiar even if imperfect. To that, add the rankling recollection that large-scale peacetime planning was born in Russia and raised in totalitarian countries which now comprise the Axis. Many among us conclude that being so associated with loathed policies, planning per se must be inimical to democracy. It is easily forgotten that planning is not of itself a policy but a tool of policy, which would make it equally logical to reject air attack, rubber substitutes, or conscription because they were successfully used by the enemy.

Not for democracies? Let's be mindful of public education, social security, and the hundred-odd other ideas which time and again were supposed to sound the death knell of democracy. **It is insecure faith indeed which doubts the capacity of our way of life to scale the steps of history as they are reached. No system can endure unless it absorbs and digests the trends which can be neither stopped nor reversed.**

Unbuilt pipe lines and steel mills, inflammable slums, neglected railroads, rundown soil, food unraised and uneaten, skills forgotten or never learned are the gaps in our armor in this war, just as they were the creeping paralysis of our peace. But here and there was planned expansion too, and strength was made to grow where none was before. For a few examples, let me cite this nation's original contribution to democratic planning, the Tennessee Valley Authority.

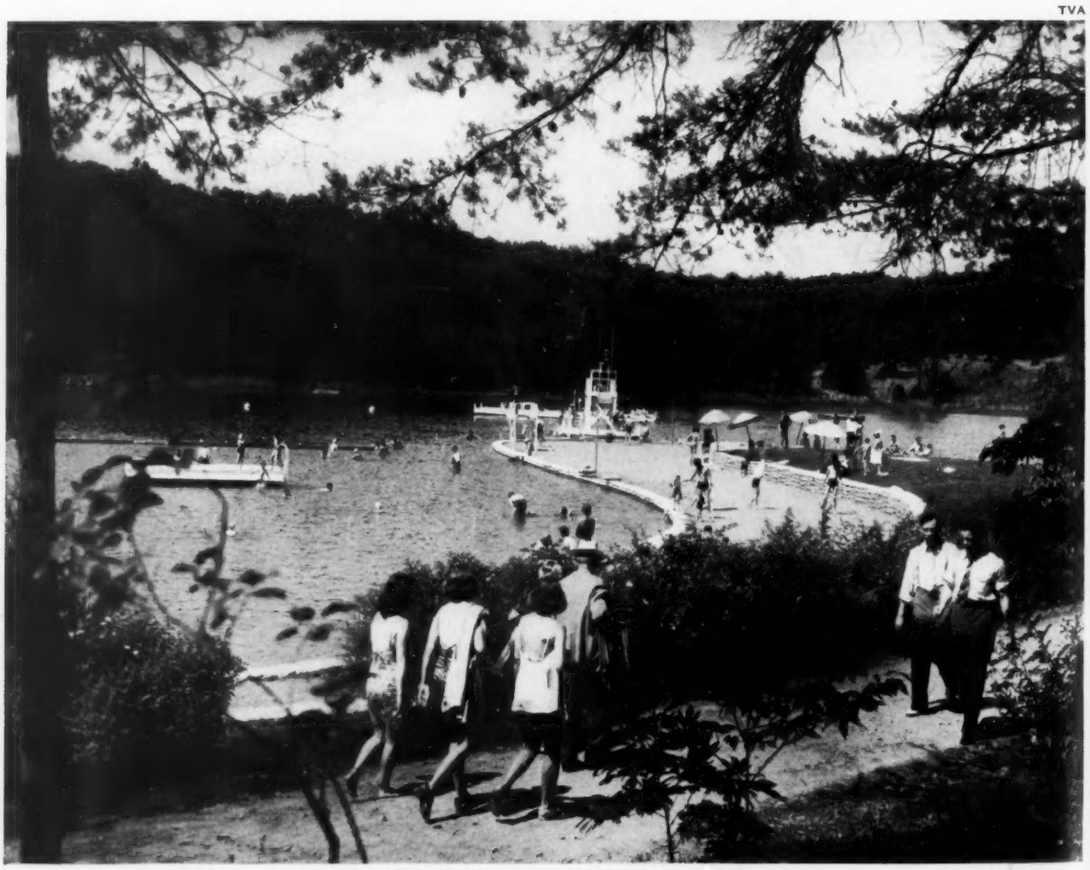
Here was an area the size of England, peo-

Commercial traffic on the Tennessee River (TVA) has jumped millions of ton-miles in one decade

For war-time workers in the Valley, the Authority built communities of modern demountable houses

pled by a proud race with fighting hearts, but almost a textbook example of confused havoc left by the exploitative economics of self-interest. Eroded hills, retarded industry, markedly inferior opportunities for health, education, careers. Then came an organization backed by the power of the nation, with a program of partial reconstruction through great engineering works, and with determined leadership for economic expansion about which there was nothing partial. Leadership to make more wheels turn, more green things grow, for better houses, more health, recreation, knowledge, and hope — more power. TVA had no dictators' tricks in its bag. But it possessed the ability to see all of a region's problems as one interrelated whole, had its own works for demonstration, and had the persuasiveness of a creative idea. After nine years the results are evident— and conclusive. Decline and devastation came to a halt; powerful new prime movers have been set in motion; economic oppor-

TVA



Since it was opened in 1936, Big Ridge Park has been enjoyed by thousands of vacationists. It was developed as a demonstration park by the CCC, TVA, and National Park Service

tunity has been thrown open for men of energy, resource and daring. New plants, some enormous, sprawl alongside the old; green sprouts on barren hillsides; river transport jumped from an occasional tow to millions of ton-miles; electrification spread to the remotest rural corner; the Valley is alive with hope, energy, determination.

As architects, it would be natural to ask: what is our special concern with planning, and in what ways, if any, would the practice of our profession be affected in the kind of world of which TVA may be a first token?

Now it seems obvious that architects don't thrive on depressions, wars or social struggle. Perhaps more than other groups, they thrive on two conditions implicit in the success of any planning program: **stability** and **expansion.** It would be natural for us to become spreaders of the gospel of planning.

But it may be well also to guard against a facile delusion sometimes connected with support for the idea: that we (or any other group, for that matter) have proven special claims as technicians or directors of the planning process. True enough, we are trained in the simultaneous weighing of many different factors; also in seeing the yet unborn and unbuilt as if it were there to be viewed. And dealing with a product for direct human use, subject to direct human reactions, we may have a head start on statisticians or engineers in the matter of rapport with the public mind, which is essential. But **how many of us have real background in technology, transportation, economics, public administration, land use and innumerable other disciplines which should be familiar to anyone claiming special qualifications as a planner by virtue of knowledge and experience?**

By and large, planning is likely to be a group effort. The utility and standing of architecture may be determined by the understanding of other professions, evidenced by the architect's skill in shaping his special component of the collective creation to the pattern of the whole. To be sure, group planning does not exclude leadership by the special genius of persons who may fittingly be called simply "planners" (and here is hoping that many of them will be architects) but it would be injurious to the profession to assert that its practitioners, per se, possess the necessary qualifications.

Lastly, what changes would the crystal indicate for the business of architecture—if we had a crystal? Probably destined to swap independent achievement for contributions to a greater whole, the architect may be led into yet another kind of group association within his own craft also, either by preference or necessity. The ideal of a shingle, a roomful of drafting boards and a pretty secretary in the hall may give way to large professional organizations in an age typified by fewer units. There is little need to elaborate upon the competitive advantage conferred upon the large unit by modern technology, not only in the commercial, but also in the social, or national, or military sense.

The moral for the architect seems obvious. Among his clients will be fewer individuals asking for individual buildings. There will be for him less assurance of receiving his share, through the law of averages, out of a limitless supply of unrelated projects, large or small. Public works can hardly fail to grow in percentage of the total national job; and even if the actual putting up of other projects remains the task of private enterprise, many decisions may have been made ahead of that stage (as forecast by current proposals for urban redevelopment) or may be centered in very few hands (as suggested by the emergence of prefabricated houses, the ascendancy of chain businesses, and integration of the building industry itself).

While he transmutes into a participant or employee of large professional organizations to deal on equal terms with large clients the architect may also have to meet and learn more about the little people who are likely to be his ultimate patrons represented by PWA, by the prefabricator, or what have you; whose interests were always too small to warrant the employment of an architect, so small in fact that they were referred to collectively as the **public interest.**

The future is unpredictable, to be sure, but not because it is shaped by any mysterious and overwhelming forces of nature. On the contrary. If the technological revolution means anything, it means that we learned the rules of the game whereby **nature can be made to yield any kind of destiny we want badly enough.**

WHAT retards Urban Reconstruction?

BY W. C. Behrendt

Lecturer on City Planning and Housing at Dartmouth College since 1940. This distinguished German planner, Housing Authority, Doctor of Engineering, Author, Lecturer, has lived in America since 1934

WE know the physical structure of our cities, large and small, is obsolete. We know that our cities have not kept pace with the advance of technology. Many a city, after rapid and extensive growth, still shows, particularly downtown, the same street pattern which was developed to meet the needs of its horse and buggy youth. On these streets, laid out to give access to low residential structures, there were later erected, unscrupulously, tall office buildings and skyscraper apartment houses, buildings causing a tremendous traffic congestion in their neighborhood. The original street pattern has neither been adjusted to the manifold changes in the use of land, nor has it been adapted to the new needs of motor traffic.

In almost every section, our cities show striking symptoms of obsolescence: their streets are congested with traffic, their downtown districts reveal sign of decline, their residential sections are infested with slums, and many an area is suffering from blight and decay—conditions harmful to humanity, detrimental to social life, and destructive to the municipal budget. The municipalities, under public pressure, try to alleviate these conditions by providing more and better administrative services — which involve increased expenditures. At the same time, they face diminishing tax returns. The tax revenue constantly shrinks because the city's rate of population growth is slowing down. Besides, a considerable flight from the city is under way: those who can afford to escape the present deficiencies of the urban structure, move to suburban districts. So the city is left with many blighted areas which, though still assessed at high valuations, do not yield expected revenues. And slum districts, with multiplied needs for fire, police, and sanitary protection, are a heavy drain upon the municipal budget.

We know that such conditions, resulting from the impact of obsolescence, cannot be endured for long. In view of the important part the cities play in our social, economic, and cultural life, we have to face the problem of urban reconstruction: a problem most urgent and not to be put off, needing for its solution our best talents and strongest efforts.

II

FOR the professional planner, the problem of urban reconstruction is one he has dealt with practically for long times past. To be sure, the planning technicians have, in recent years, furnished many fresh ideas of advanced schemes and new patterns which, if followed, would help to adjust the urban structure to altered realities—technical, social, and economic.

The common denominator of all these patterns, to put it biefly, is the idea of rehabilitation, of reconstruction—rehabilitation of cities by decentralization and dispersal, to attain an improved standard of urban living: reconstruction of our social life, to establish new and better forms of human association: ideas essentially social in their aim.

Some of these new patterns have already been tried out on virgin soil or under other conditions favorable to experimenting. In almost every case, these experiments have proven successful. Now, if the new schemes of physical planning which we have developed have proven feasible, why are they not commonly followed in practice? What stands in the way of their general adoption; what retards the process of reconstructing our cities on a large scale?

III

TO answer this question, we must look back at the history of the American city. We must remember that the main and decisive force in our urban development, in the last hundred and fifty years, was not the municipality but the **realtor.** As a matter of fact, in the history of American civilization the realtor plays an important part: such a momentous part, indeed, that the type was celebrated with Sinclair Lewis' master novel on Babbitt, who came to full glory in Zenith, the city of his own making. The part the realtor played in modern urban development is properly described in the following statement from one of the numerous books on Real Estate, written in the flowery and boastful language that is one of the special characteristics of this trade. "Real estate men," the author says, "became the city builders of modern times! Assuming the place of kings and emperors, who in ancient times fostered the rise and growth of cities, the real estate subdivider and the business district operator now sway and direct the future of cities in the making."

This statement is hardly exaggerated. As a matter of fact, communities in this country grew up as the results of random real estate development. At the beginning, a few streets were usually laid out by the municipality. But after that part which now forms the downtown section was built up, the platting of land in the extension area and its subdivision was left to the realtor. And in accord with capitalistic principles, for him profit, not use, became the first and main tenet, as for any other business. Land platting was done from the viewpoint of lot selling rather than lot use and integrated neighborhood development.

Section after section was laid out that way, and any city map will reveal, by sudden and arbitrary changes in block and street arrangement, where one developer's field of activities ended and another's began. These arbitrary changes, which often became detrimental to traffic movement by causing too

People Leave the City
Buffalo Loses Population to Suburbs
THE BUFFALO CITY PLANNING ASSOCIATION, INC.
Why Do They Go?
REBUILDING OLD BUFFALO
BUFFALO CITY PLANNING ASSOCIATION, INC.
WHAT WE HAVE
WHAT WE WANT

Printed matter, highlighting and dramatizing community planning needs, is a useful instrument for gaining public support for urban redevelopment

many intersections along main thoroughfares, indicate that no municipal control or regulation of subdivisions was exercised.

Credulously accepting the general assumption that land is an ordinary commodity, the municipalities failed to apprehend that the use of land is vested with a public interest. And following the established principle of laissez faire, they permitted a vast and unrestricted course of land gambling, resulting in largely inflated valuations and over-intensive land utilization: **factors which now, in the form of a tremendous debt structure, present one of the main obstacles for urban reconstruction, making building almost prohibitive.**

IV

RECENTLY, a suggested scheme offers a way to overcome this obstacle of high land charges which hinders our efforts toward urban redevelopment. This suggestion, published by the National Planning Association (Pamphlet No. 10: "Urban Redevelopment and Housing"), comes from two leading economists: Alvin H. Hansen, Littauer Professor of Political Economy at Harvard University, and Guy Greer, Senior Economist of the Federal Reserve System.

The authors' suggestion is to remove the obstacle of high land charges by having the land acquired by the municipalities with the financial aid of the Federal Government. Federal funds should be advanced, if need be, up to the entire cost of acquisition. The land so acquired would then be leased by the municipalities to private enterprise for use: such use being determined in regard to the best interest of the whole urban community, as indicated by the master plan, irrespective of the acquisition cost of the land. The authors have surrounded their proposal with many conditions which we will not discuss here beyond mentioning that provision is made for having the municipalities repay to the Government, over a period of years, parts of the income obtained from leasing the property.

The idea involved in this proposal—of charging the municipality with the function of a public land agent—is by no means new. In European countries, many cities, for long times past, own large real estate holdings, administered by special departments under expert and responsible officials. It is by virtue of this municipal land policy that European cities, again and again, were able to overhaul and rebuild obsolete parts. In Britain today, when replanning is discussed, municipalization or even nationalization of urban land seems an accepted notion. And those who are talking that way are by no means communists but Honorable Lords and Members of Parliament, Laborites as well as Tories. For this country, the conception of a municipal land policy is still new. Only recently has such a policy been publicly discussed and officially recommended by the Federal Government as a measure well suited to help us in our need for urban reconstruction.*

Now, the Hansen-Greer scheme, if workable, would help to solve the most difficult part of the problem of urban redevelopment— the financial rather than the technical part. It would relieve the initial investment needed for redevelopment projects from assuming the cost of land to be acquired: a burden which, as yet, was generally prohibitive for their realization.

The intention of facilitating the reclamation of blighted areas by relieving the cost of investment underlies, by the way, the so-called Urban Redevelopment Acts, adopted by various States, and permitting partial tax exemption over a limited period of years. The Hansen-Greer proposal, however, is more radical and, therefore, more promising. It will make all the difference in the world for our rehabilitation projects whether we can lease the land on reasonable terms for use, or whether we have to buy it and then figure on densities to meet the high, though fictitious, land values still maintained in substandard and blighted areas. What the authors of the proposal have in mind is clearly expressed in their statement that "the public acquisition of land would be a by-product of the job of clearing away the obstacles to redevelopment, and any portion of the acquisition cost not subsequently recovered would simply be written off, as the price to be paid for the errors of past generations."

To put it bluntly, after we have, during the past, permitted the gains to flow into private pockets, we now discover that we will have to socialize the losses before we can make headway in our attempts toward urban reconstruction.

*National Resources Planning Board: Public Land Acquisition. Part I: Urban Lands. Washington, D. C. February, 1941.

V

THE preceding goes to show that all planning today is social and economic. All the patterns and schemes of modern planners anticipate, in our society as it is, the pattern of a new social order and the needs of a society to come. All these new plans and projects bristle with social and economic implications: then suggest new forms of social and economic behavior, of community organization, of public administration — in short, of a new pattern of life and work, revising the whole social fabric.

It follows that all progress in physical planning requires changes in social thought. Before the schemes and projects of modern planners can be realized, there are needed modifications of the existing social order, adjustments of our prevailing institutions. This regards not only our habitual attitude toward land and land valuation, but is also true for our administrative practices and our traditional methods of private and public financing which, until now, have completely neglected the factor of social accounting. Obviously, it is beyond the power of the individual planner or any individual to bring these necessary changes about. These can be achieved only by collective action, by a common effort of society. However, as long as these changes are not achieved, the planner, again and again, will find his projects frustrated. It reflects the day-by-day experience of every planner, I believe, when Harold Laski, in a recent book, points out "a deeply-seated sense of frustration evident among technologists as well as scientists, who declare that their power to lessen the burden of mankind is thwarted by the economic and social institutions of our time." As a matter of fact, what retards our progress in planning is the surprising and depressing discrepancy between our ingenuity and technical skill in physical planning and our capacity of social assimilation. While our technological advance strides in seven-league boots, our sociological initiative still proceeds in pedestrian fashion.

Now, in times of social change, such as ours, it becomes the task of democratic government, established to provide the greatest good to the greatest number, to take a strong leadership in the efforts for social renovation and to bring about, by legislation, such adjustments of our social and economic institutions as are needed to fit our new concepts. Such governmental leadership is implied in the Hansen-Greer plan.

The government, however, even with active leadership, even if it is imaginative enough to see the need for establishing a new program of social policy, cannot push its action further than public opinion will permit it to go. The mechanism of democratic government, as the political scientists tell us,* can only be called into action when a free agreement, when an effective concensus of public opinion has been reached.

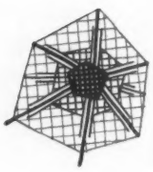
City planning is a social art, and planning for urban reconstruction is only part of the greater problem of planning for social renovation. As a planner, the architect in these times is called to join the craft that is about to build a new society: a call which sets him a great, a noble, a thrilling, and a most fascinating task, and also a most difficult one—a task that involves great responsibilities, and requires a most comprehensive preparation. And yet, not one of the planner's prospective ideas can be realized until society is ready to accept the premises on which his plans are based. **The first thing that has to be done to put our plans into effect is to create a public opinion ready to endorse those premises.**

To build up such a public opinion is a vast challenge to education, demanding its best and strongest efforts. It is not enough to hold out the promise of a better way of life as demonstrated in our projects: the average citizen will gladly accept these projects, for his own benefit and that of his children. What is needed, first of all, is to win him over to accept the social and economic changes involved, and to make him understood what he and his fellow citizens have to do to bring our plans into realization.

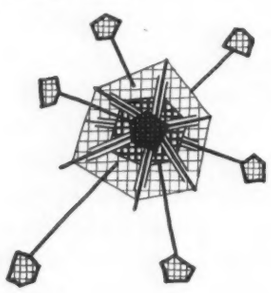
Only if our plans are supported by an enlightened and well-informed public opinion, a public opinion strong and militant enough to engender, or even to enforce action, can we hope to make substantial headway in rejuvenating our cities by large scale reconstruction.

*A. A. Berle: New Directions in the New World. New York, 1940.

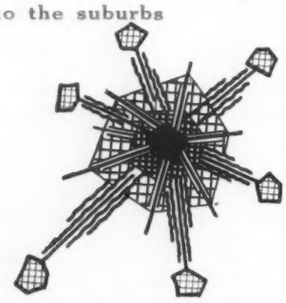
CITY PATTERNS . . . past



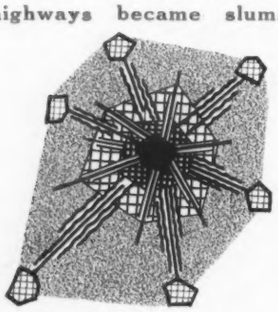
The city started at the crossroads. It grew out from the center: overconcentration, decay started at the center



The auto permitted escape of people and industry into the suburbs



The urban backwash; highways became slums



The city engulfed the suburbs; realtor and developer filled in open spaces

BY

Recognized authority on housing, regional and town planning. Recipient of many professional honors, Stein began to practice after service in World War I. He is now busy with defense housing.

THE old city pattern consisted of an endless repetition of similar rectangular lots and blocks divided by a gridiron of streets that ran to infinity. The gridiron pattern of small blocks and narrow deep lots is a convenience for trade in land—not good living.

The conventional city plan destroys community life. It cuts neighborhoods into small islands separated by dangerous flow of traffic. It loses the identity of neighborhoods in the pattern without limits or end. It has no focal center or boundary.

Modern urban life requires a completely different plan based on

1. A setting for neighborhood community life cut off from the flow of city activities, where all can develop their individuality by actively participating in the common life. Only so can the democratic way of living be preserved.
2. Spacious living—plenty of light, air, broad vistas of nature; large, natural spaces for leisure, safety; and conveniently reached from all homes.
3. Economy in the unessentials, so as to permit complete equipment for healthful, wholesome individual, family, and community living.
4. The use of the automobile with complete freedom and safety, and protection from the annoyance and dangers of the automobile.
5. The use of the airplane, which will determine the form of the future even more than the auto indicates the need of the present. All we know of the future is that we **do not know** just what technical change will determine its detailed pattern; but we do know that the requirements of human needs and human desires for closer contact with nature, as well as the necessity of flexibility to meet changing techniques, indicate the pattern of limited-size units surrounded by open spaces close to all activities.

Essential Physical Differences — Old and New Patterns

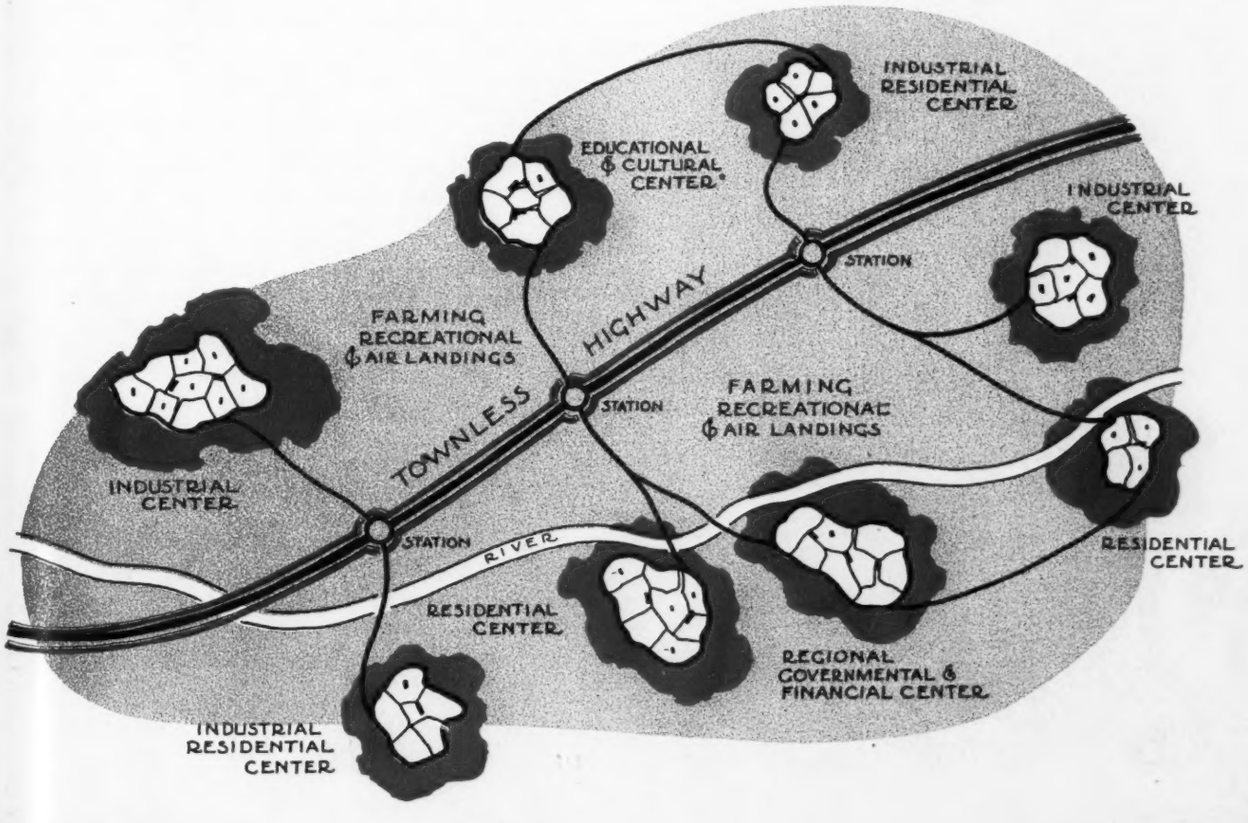
Basic Unit. The region and the neighborhood form the basis of design and operation in the new—the lot and the city in the old.

Regional City vs. Metropolis. The old metropolitan city is a limitless agglomeration, with a dominant center. The new Regional City will be a constellation of small or moderate-sized towns (or communities) separated by great areas of natural green, but bound closely together by "townless highways" or parkways.

City-Country. The new consists of communities of limited size integrated into a regional pattern of closely related urban and rural life.

Neighborhood Communities. In the formless mass city of the present, community life and face-to-face democracy have been submerged and lost. New communities should be small enough to permit neighborliness and participation of all members in common concerns, but large enough to allow a rich and varied community life and to support

THE REGIONAL CITY. **The Regional City consists of a group of communities which, in aggregate, should be large enough to support economically the essential equipment of a modern American city. Each community, in addition to its residential function, may serve one or more specialized functions required for the group—industrial and commercial, cultural and educational, finance and government, entertainment and recreation. Community character is permanently established by a surrounding protective area of natural green. The open spaces between communities are kept permanently open for their related uses as farmland, recreation area, or natural woodland. Because the unit of scale of the Regional City is the free, safe use of the automobile and the airplane, the residents of any community within the City are as near in time to the other communities and to the open spaces between them as the residents in the outlying areas of the sprawling metropolis are to the center**



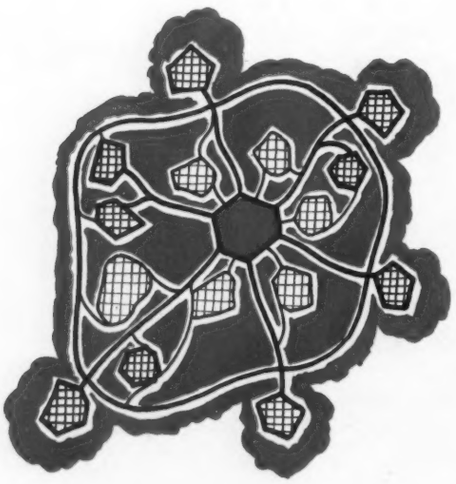
adequate communal facilities economically.

Towns. The consolidation of a number of neighborhood units into a community or town for the purpose of carrying on common functions (high school, market center, etc.) more efficiently and economically, can be organized without loss of the individuality of the neighborhood.

Open Spaces. Openness is the main characteristic of the new pattern; the skeleton street plan dominated the old plans. The central framework of the new is not solely highways as in the old, but a related system of roads and parks that fit together so as to give freedom for movement and protection for repose.

Blocks and Super-Blocks. Specialized superblocks with central areas of park replace the monotony of small standardized blocks. Instead of shaping individual houses to fit predetermined lots, the form of blocks is molded around the requirements of living. The topography of the site and the desired grouping of houses, community buildings, stores, and open spaces determine the pattern of roads.

Circulation. Roads serve instead of dominating. Streets and paths are located to fit the most desirable arrangement of buildings and open places. Each means of circulation has a specialized form and construction. Freeways, or Townless Highways for high-speed through-traffic, pass between but never through towns. Distributing and Neighborhood Highways collect and distribute traffic in the town. Access to properties is solely by lanes designed to discourage through-traffic. Paths are completely separated from roads. All parking is off roads on adequate areas specially designed and paved.

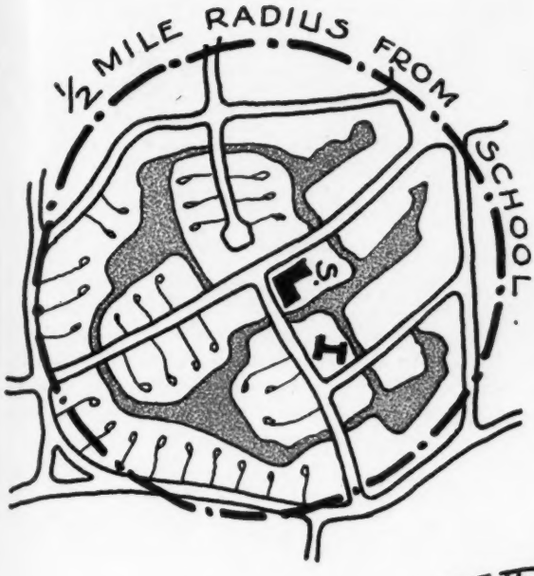


Metropolitan Reconstruction

Salvage: Alternate methods of eradicating the most decayed areas, stopping further blight, improving and freeing circulation in the existing metropolitan complex through application of the principles of the Regional City

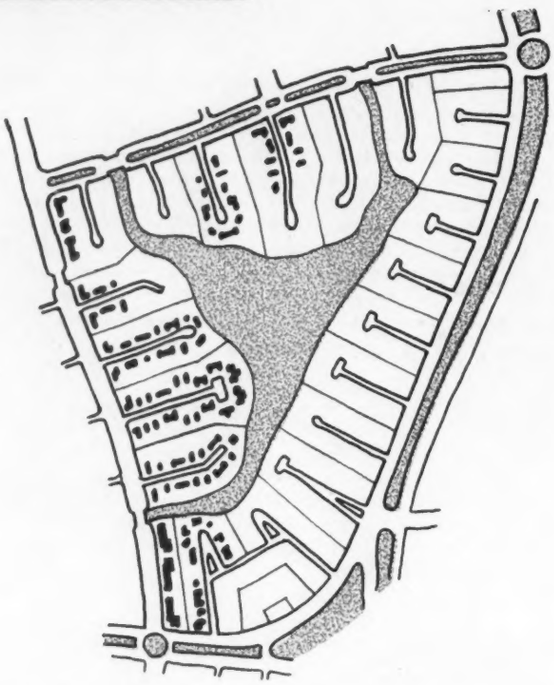
← **The theoretically ideal method of attack: decay at or around the core replaced by green area, outlying secondary centers largely preserved and connected by the circumferential high-speed parkway; intermediate areas preserved in well-defined neighborhoods and protected against further blight by careful interweaving of green open spaces; a new system of secondary roads connects these with the center and with the circumferential parkway, but roads do not bisect any residential or commercial areas**

← **The expeditious method of attack: decay at the core is also replaced by green; but the main areas of development around important arteries are preserved, interwoven with a system of parks and open or recreation area; and outlying centers are connected by a new circumferential parkway which links but does not intersect them**



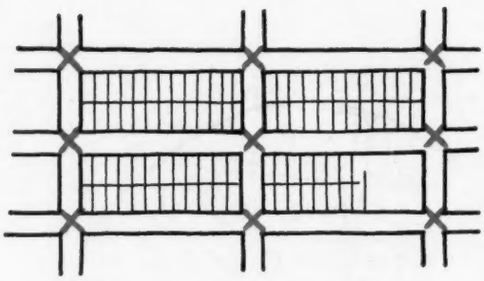
THE NEIGHBORHOOD is the natural basic planning unit which permits the greatest economy and freedom in the layout of blocks, streets, shopping centers, schools, recreation spaces, houses. It centers around communal interests, whose focal point is the elementary school. Ultimate size of each neighborhood may be measured by the number of families whose children will fill an efficiently-run school. Each neighborhood requires well-defined borders to preserve and protect its unity and special character. Topographical limits or planted areas may determine these

THE COMMUNITY is composed of one or more neighborhoods separated by open green spaces, but bound together by secondary roads. The development of a community requires common interests vital to residents. Size depends primarily on predominating interest or need—usually high school community center—and on the most workable and economical organization for that function.



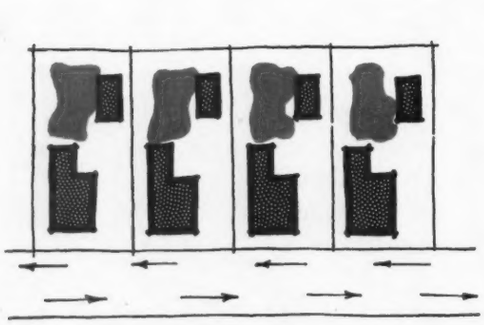
THE SUPERBLOCK: **Open Spaces—Safety —Green City.**

Planned for peaceful living and privacy, houses face on quiet spaces and are oriented to receive the maximum amount of light, air, and sunshine. They are safe from the danger and annoyances of traffic because they are reached by specialized paths isolated from traffic highways



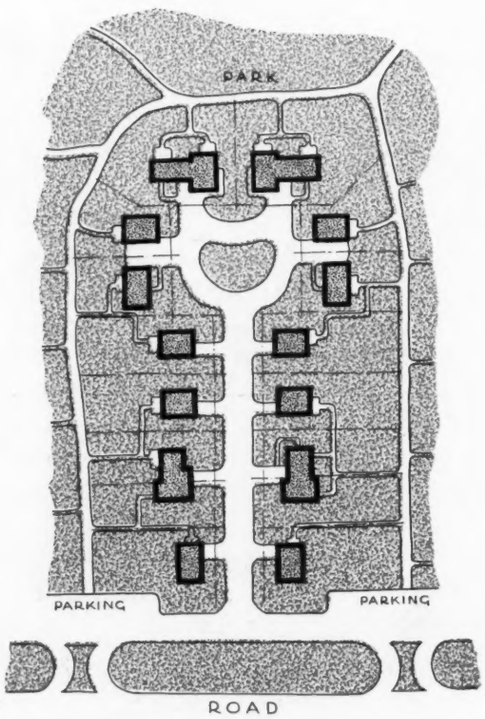
GRIDIRON: **Prison Bars—Gray City**

Buildings and lives cramped into a predetermined framework of roads and lots. Ownership for speculative profit has led to ever-increasing land coverage, congestion, shadows, gloom, foul air, and disappearing open spaces and natural green. The same sites for houses, stores, factories, and even monumental buildings



GRIDIRON GROUPING

Each house fronts on the street which serves all purposes—through-traffic, local traffic, parking, deliveries, and sometimes recreation—and is confined not only within the prison bars of streets but of narrow lot lines. The pattern of roads and utilities is uneconomic, and, for living purposes, the land is largely wasted



PREFERRED GROUPING

Houses and other buildings, instead of being cramped into standardized lots, are organized in groups so that each may have maximum advantage of air, light, open spaces, at minimum cost. The living quarters of houses face on gardens, grouped around large central parks. The service entrances are accessible to local service roads and parking areas, but do not face through-traffic highways. Pedestrian paths are on the garden side of the houses and run through the parks

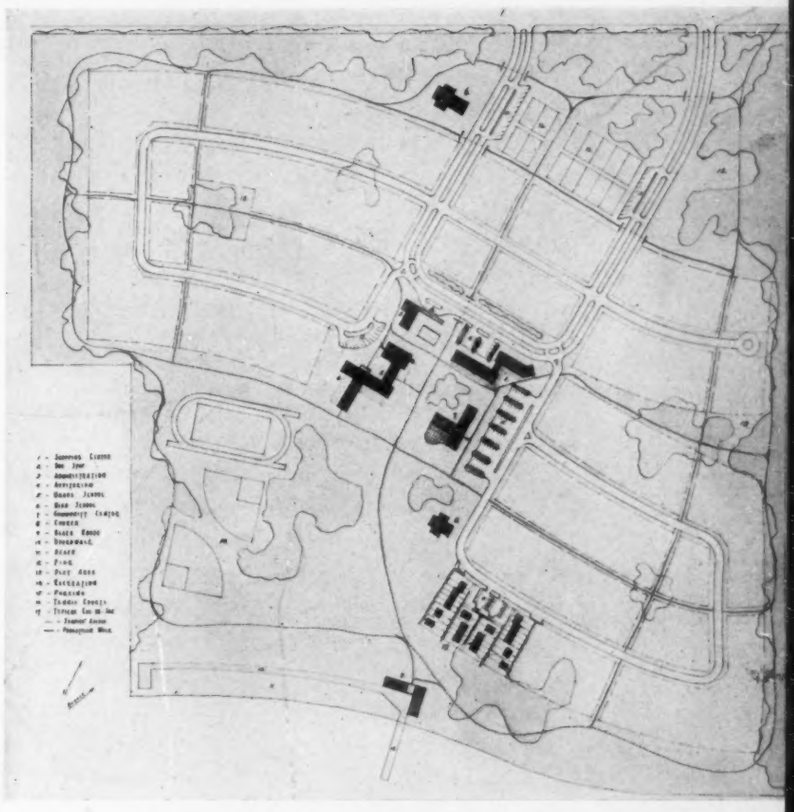
Training Architects For The Future

BY Leopold Arnaud

Dean of the School of Architecture, of Columbia University and recently named Ware Professor of Architecture. He is head of the Association of Collegiate Schools of Architecture

THE profession of architecture, **as we have known it,** no longer exists. But this qualified statement does **not** mean the profession is extinct, or that its future is sad or hopeless. The need for architecture and for those who produce it is as enduring as human society. This seemingly trite assertion is today not generally accepted, and it is my conviction that it must be stoutly defended. There will be changes in nomenclatures, problems, and conditions of practice. It is the role of the architect to be sufficiently clear-minded to recognize the changes, and sufficiently flexible to devise methods for coping with them. This is a challenging prospect; difficult but not discouraging.

The complete cessation of private practice that we are witnessing today is impressive, but not surprising. The history of society is the history of architecture, and for the past three decades it has been grotesque; war, boom, depression, war. This sequence of four varieties of chaos inevitably brought about the breakdown of existing systems. During the depression especially, it was obvious to the far-seeing that the day of patronage was done and that another system would take its place. The war has completed the transition with such rapidity and completeness that we are still shocked by the crack-up. But with increasing realization of the accomplished change, we must speculate about the future to prepare for it and mold it insofar as possible.



At Columbia University architectural students are regarded as "inheritors of the profession," and the problems set for them suggest possibilities of Tomorrow. Above is shown a portion of the design for a defense housing community that recently won for Hayden Johnson, '41, his second Henry Wright Memorial Prize

REVEILLE OR TAPS?

It can be assumed that in the post-war era the architect will build for a community or group. Consequently, his client will not be an individual, and the architect will function as a member in a team of specialists. The problem will be highly complex, because a **group** of individuals or a large scale endeavor will be involved, and because technological demands are developing continuously. These complexities will make the collaboration of specialists an absolute necessity.

Both the architect and the engineer will be among the members of the team, and they will have to learn that they must complement, **not supplement,** each other's work.

The role of the engineer is to develop the methods of structure. (The details of his contribution cannot be explained in this short comment.) The role of the Architect is to interpret the requirements of the problem in terms of space and mass and structure, to interpret materials in terms of form, to coordinate the functions of the various specialists, and, above all, to create a design that will fulfill all practical needs but that will at the same time mold utility and economy into an esthetic composition. To do this, the architect must have trained taste, and be endowed with sensitive perception and creative capacity. But he must also know the science of structure and the capacities of materials. He must have a good measure of the engineer's training which, however, would not be an overlapping, but rather a common basis for the concerted efforts of these two specialists.

What can the schools do to prepare professionals for this type of work?

We believe that the schools are already doing a great deal. A comparison with the past will prove it most dramatically.

Professional training should be based upon some general study; general studies must be required therefore as a preliminary, or included in the curriculum. The extra-professional work should include a serious preparation in the sciences (mathematics, physics, chemistry) and some history, economics, sociology. The student should be familiar with the world—both scientific and human.

Having in mind that the future architect will be primarily a planner and coordinator, he should be developed accordingly. Design in all its potentialities should be the nucleus of the training. While learning to design, the student must learn how to study the specific requirements, social or technological, of his problem, and he must be trained to collaborate not only with building specialists, but also with industrial technicians, sociologists, and a variety of civil authorities. The study of design must also be integrated with courses in construction so that the student will have a practical (though not a specialized) knowledge of structure, materials, and mechanical equipment.

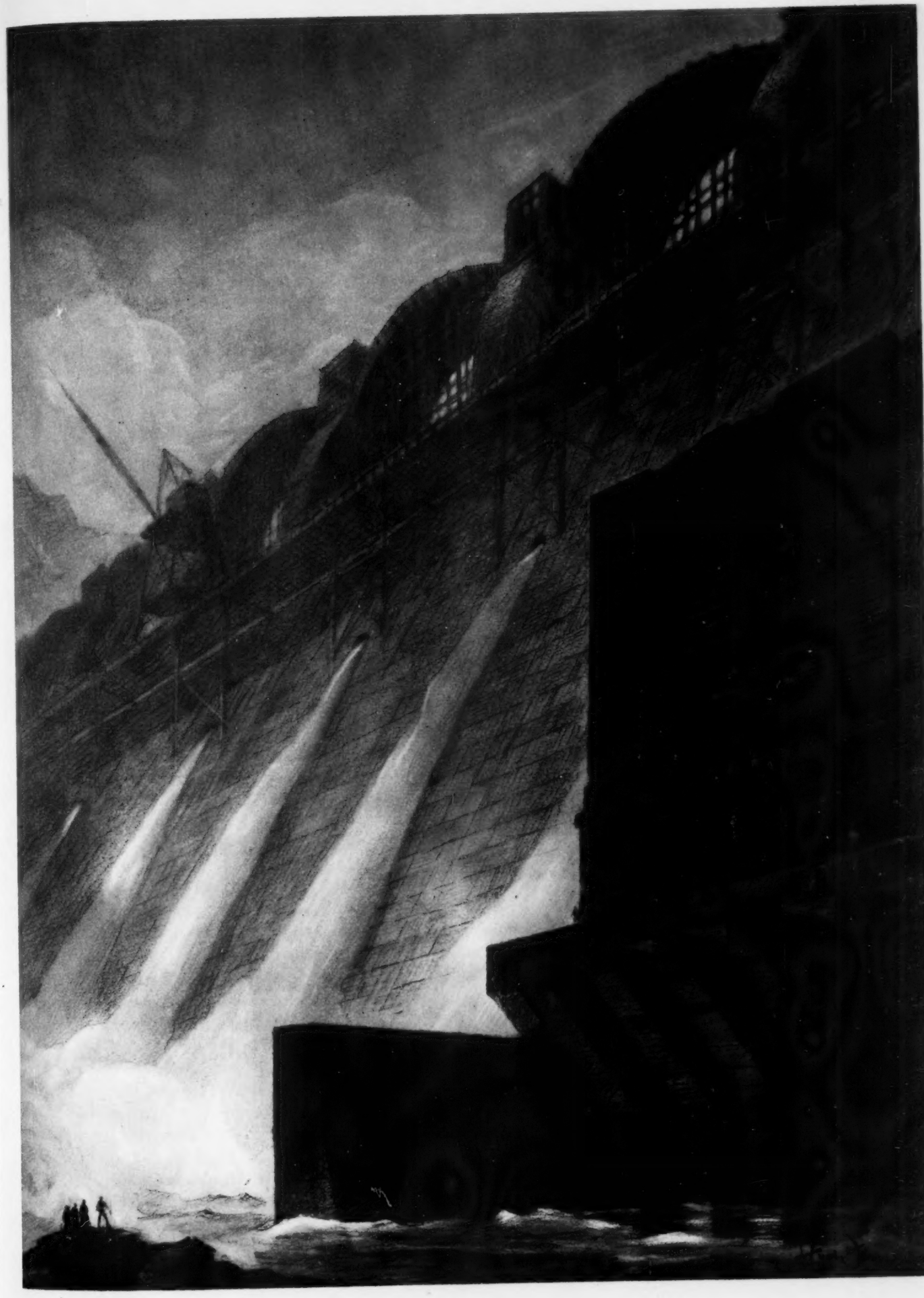
The schools, while primarily for architects, should also provide for town planners, industrial designers, interior designers, landscape designers—specialists whose basic training is similar to that of the architects. By architects, I mean the men who will inherit and carry on our profession. But they may not be called by that name, as its continued use may be impracticable, implying to the layman an outmoded form of practice. The present situation is highly significant. While there is an urgent appeal for "architectural-engineers" and "construction-draftsmen", the men in government offices cannot be made to understand that a large part of the war construction can best be done by the men who have architectural training and experience.

Whatever the name, the profession is indispensable, and it must have its disciples. We cannot foresee in detail under what conditions they will function, but the changes in store for the architects are perhaps no more drastic than those that will come to the doctor, the lawyer, or the business man. But this is a challenge, not a cause for regret or defeatism. The profession has before it a thrilling future.

Building activity will be tremendous in scope, and for the very reason that the changes will be drastic and general, it should be a period of great creative fecundity. New methods, new materials, new problems, new social and economic requirements; not only a new era, but also a new physical world!

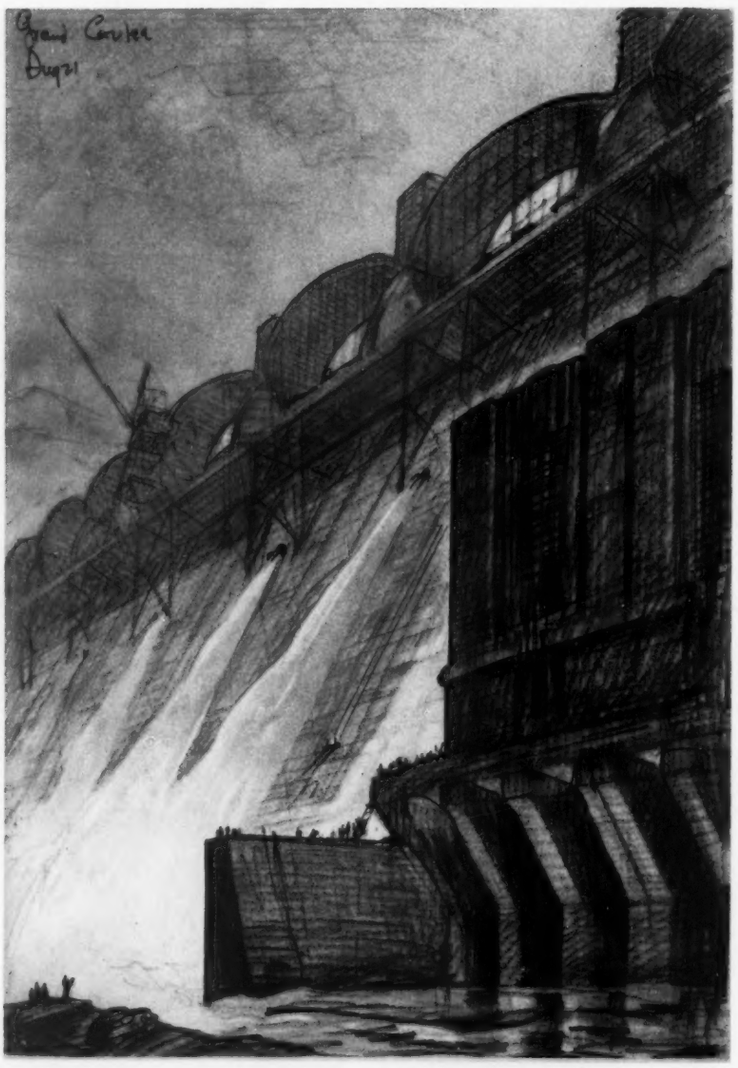
Those in intimate contact with youth can sense, in spite of a certain inevitable amount of restlessness and confusion, that the young generation understands the possibilities of the future, and faces them expectantly.

The young are not afraid, but the schools must fit them for their task!



GRAND COULEE

The Brunner survey was to include the country's power plants and dams and Grand Coulee was a "must" for obvious reasons. Being an accomplishment of the Department of the Interior, a note from Secretary Ickes was of assistance and Major Hutton of the Reclamation Bureau gave several hours, on two days, to conducting the party over the site. A peculiarity of Grand Coulee is the difficulty of grasping its magnitude; there were two grandstands placed before the spectacle to permit the public (at least in peacetime) to gain a comprehensive view; even here, however, it was difficult to realize that the power house (lower right, in the drawing) is as tall as the Architects Building in New York—18 stories. In the sketch, two dots may be seen just to the left of the power house; from the grand stand, they looked like "flies" on the spillway; actually, they were two men working on a scaffolding let down from the crest.



It seemed that the scale was appreciated most clearly from a viewpoint as near water level and as close under the power house, as possible; therefore it was sketched from the viewpoint shown, using Pluvius pencil and pad of tracing paper. The final drawing 16" x 22" was made on return to the studio—

Wolff crayon, paper stump, kneaded eraser, Devoe & Reynolds' illustration board.

Hugh Ferriss

POWER *of America*

by HUGH FERRISS

The drawings made by Hugh Ferriss while traveling 18,000 miles through the United States as the Arnold W. Brunner Fellow of 1941 portray noble qualities of our Contemporary Architecture that are unrealized—or ignored—by too many observers. The trans-continental Brunner trip was made by this distinguished New York Architect and Delineator seeking "the architectural record of the Late Thirties and Early Forties" and he came back inspired by what he saw. It is the privilege of PENCIL POINTS *to reproduce four of his remarkable collection of drawings, of which the view of Grand Coulee in this issue is the first. Below is a transcript of some remarks by Ferriss at an Architectural League of New York dinner that opened the first exhibition of the Brunner drawings.*

One cannot travel far in this country without realizing that this war, to a surprisingly large extent, is being waged in buildings. It should be obvious that we could have no aircraft without the aircraft plants; that factories could not operate without power plants, and could not be manned without the projects to house the men; that materials and orders could not be forwarded without the structures of the transportation and communication systems. To list even the types of buildings used by Government, Army, Navy and War Industry has taken pages. Yet one has to go through the country, seeing things at first hand, to realize the true enormousness of the war-construction effort.

Although most of these drawings illustrate buildings now used in war, I have of course barely touched the fringes. Perhaps one will have an opportunity to pursue the matter further at a later date. Speaking to Washington, I think it could be pointed out that the public reads and hears a lot about the construction program but does not visualize it. No one wants the public to visualize it in specific and secret detail. But to bring home **a general, dramatic, and inspiring sense of it would be a national asset.** I, for one, came back with so inspiring an impression—inspiring one to join, with all his energies, in a venture so vital and having every earmark of success—that I would like to pass the impression on to others.

To anyone who has seen buildings actually in war operation and who knows that an architect figured in each of them, the assertion that architects are non-essential in war time seems simply untrue. Where would we be without these buildings—without the contribution of architects?—a bivouacked nation with full war-preparedness? Impossible.

Such buildings as I have portrayed **show how we do a certain part of the fighting; also show what we are fighting to defend.** Architecture is more than "the science and art of building." It is a record of civilization. Our way of living is shown, in large measure, by the kind of buildings we build.

This is, of course, no new thought. The stones of the pyramid, which have always to a student of architecture made up the handsome mass, have also to the sociologist memorialized the slaves. The ruin of a baron's castle, dominating the village at the foot of the hill, is a picturesque composition: it is also a perfect social document. In our own land, a few white houses of a certain style, set under elms around a Green of a certain size, explain (in their brief and beautiful architectural prose) how our Colonial ancestors spent their daily, independent lives.

I remember the day when this idea of **architecture being history** first came home to me. In 1930, standing on a parapet on The Architects Building: behind, a studio destitute of jobs: below, a strangely quiet Manhattan with riveting machines silenced. Like others, I had been enchanted by the New York skyline. Now the scene was appearing it its true, and rather sombre, colors. Those towering masses seemed monuments

to the rugged individualism of the period; their topmost, unnecessary floors and gilded spires, to the conspicuous waste and rampant advertising; their long shadows across slums at their feet, to the exploitation. The whole scene showed up the laissez-faire, the competition, the absence of cooperation—and of long-term planning hardly the vestige!

IF that, or something like it, was the architectural record of the Twenties, what, I have wondered, is the architectural record of the Late Thirties and Early Forties?

I think the dams are pretty clear evidence of a nation in its age of power.

The railroad terminals, highway projects, and airports record the stage of mobility.

The post offices, telephone and telegraph buildings, and broadcasting stations indicate and explain national intercommunication.

Closely connected with the foregoing, we have built up a nationwide industry whose story is clearly told by the plant.

This administration, whether you like it or not, has recently erected an architectural monument to Government that stretches from the Atlantic to the Pacific.

American concepts of public housing, health, recreation and progressive education are clearly revealed by American buildings.

Please note that our publishing plants, auditoriums and other places of assembly, and our churches, are, in their multiplicity and diverse character, the concrete signs of our Freedom of the Press, of Speech, of Assembly, and of Worship.

I have not forgotten that certain buildings not included in this survey—say, Independence Hall—are the outward and visible sign of the American spirit.

Historians and commentators, in describing American ideals, use many words, often controverting one another. **In Architecture, we have the witness that is absolutely silent and absolutely convincing.**

THE foregoing considerations suggested to me, in going over material collected on the Brunner trip, certain categories of buildings. I wanted to find, for each, at least one building that had the further characteristic of being good architectural design.

On this subject, I want to say, it has not been my conscious intention to be a special pleader for any particular Style. I was interested in something that seems to me more important; namely, the falling out, in our time, between Engineer and Architect and (or so I believe) their imminent reunion.

We have always defined Architecture as "the science and art of building;" but I believe it has been a great mistake to accept so widely the word "art" in that definition to mean merely "skill." **A real architect is an artist in the widest and best sense of the term.** Thus, what the definition means, really, is that an architect is both a scientist and an artist. And these two frames of mind do not oppose each other, nor compromise, nor merely work side by side. In a great work of architecture, they are as definitely present, if as mysteriously blended, as are hydrogen and oxygen in H_2O.

A pretty theory, perhaps? In actuality, when most of us got to the University, we found the engineers on one side of the campus, and the architects on the other. And after dark they threw stones through each other's windows.

They have been doing so over since. I **still know some architects who think an engineer is a sort of hard-boiled item** to call in at the last minute to hold up their facades; **also engineers who think an architect is a sort of silk-tied booby-genius** to call in at the last minute to add a cartouche.

The falling out was not altogether surprising. The very duality of the architect's role made it likely at any period of history that individuals, according to mere personal temperament, would overstate either of the two interests—technological or artistic—at the expense of the other. But with the oncoming of an "industrial revolution," an "age of science" (we never call this the "age of art") a split became almost inevitable. The esthetes of the profession, surprised and thus easily mistaken, saw no possibilities for beauty in this scientific deluge. Like King Canute, they "forbade" the tide to rise. A younger generation took to it like ducks to water. But tired of the sentimentality of their elders, they threw overboard all true architectural sentiment to boot. **We got "machines to live in" that seemed intended to be lived in by machines.**

In starting out on the Brunner trip I thought that perhaps enough time had already elapsed for the first signs of beauty to appear in this new world of precise forms—for the **reunion between scientist and artist** to begin. I offer these drawings in evidence that a reintegration is well under way.

Prefabricate . . . PRE, a prefix denoting priority; FABRICATE, to make according to standardized specifications (Webster). Photo shows a prefabricated concrete house built about 1918, one of numerous attempts at prefabrication in metals, masonry, and wood

Toward Architecture—

OR MASS-PRODUCED JERRY-BUILDING?

Prefabrication, under stimulus of war and expert publicity, has sprouted a confusing, weedy terminology. More uncertainty develops when, to one practitioner, prefabrication involves construction only, while to another it must include heating, electrical, and other stationary equipment as integral parts of the structure. And these are only the bare, elementary concepts. To explore further leads us to discover beliefs which, we hear, may revolutionize architecture. One aspect they all have in common: they are not new; but the cry is that today's technical possibilities are far beyond the demonstrated capabilities of the average architect. Too, there is danger that prefabrication, being of relatively recent acceptance, may become a hobby horse for pragmatist and theorist alike to ride full tilt into a premature grave. Shoddy results and unfulfilled promises may burden us with speculative evils and bury a promising industry under public indifference.

So, not only to clarify a situation, but also to fortify ourselves, we must comprehend claims and counter claims. In some detail, though not adequately, individual theories take form somewhat as follows:

Conventional construction works; therefore, prefabrication should be as like it as possible.

Conventional principles work; but wasted materials, inefficient methods of repairing or maintaining the structure, demand that they be modified.

Only with radically new types of construction can full benefit of machine methods be achieved.

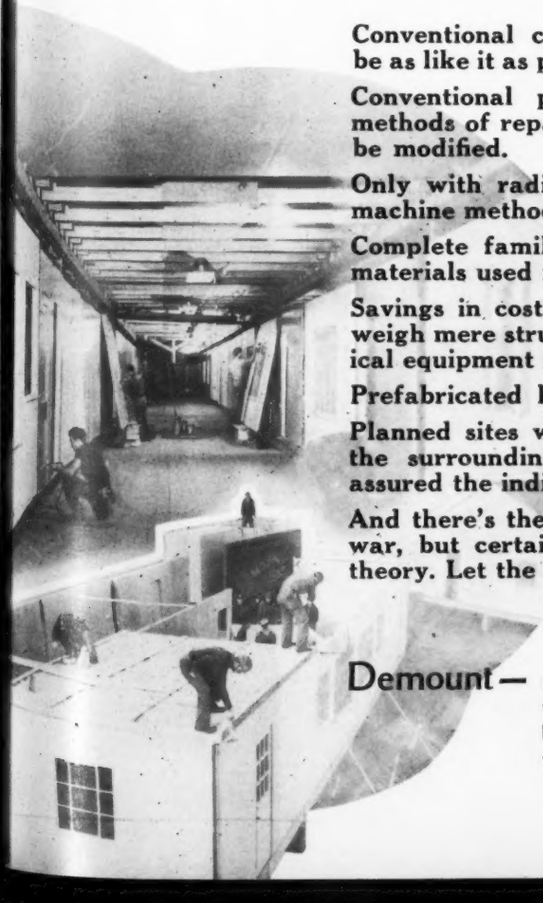
Complete familiarity with chemical and physical properties of all materials used is essential.

Savings in cost and operation of mechanical equipment so far outweigh mere structural savings that no system which neglects mechanical equipment is any good.

Prefabricated houses are not enough. We need pre-planned sites.

Planned sites won't work either, unless the site is compatible with the surrounding community, and satisfactory economic status is assured the individual house occupant.

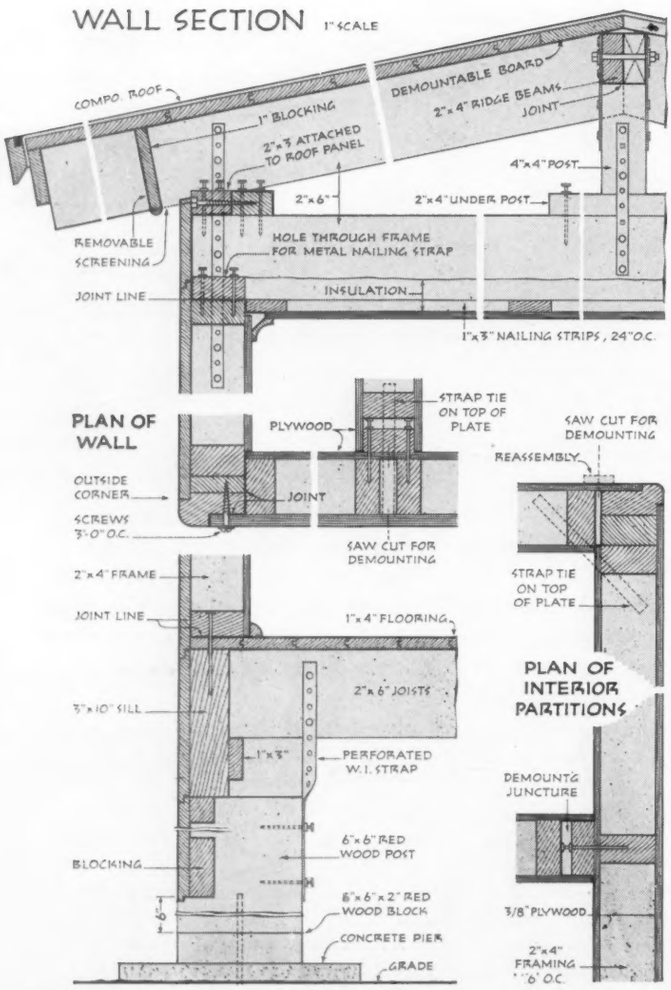
And there's the fabricator who says—not openly, because we are at war, but certainly in his methods and products—"To blazes with theory. Let the buyer, governmental or individual, beware!"



Demount— to disassemble; adj.—DEMOUNTABLE (Webster). Washington now disavows the word. Photos show monorail production in the plant and field assembly of National Homes Corporation houses. Wall, ceiling, and roof panels are transported in one truck; floor panels are transported in half another truck

CONVENTIO

Standard Demountable system, Paul R. Williams, Architect, shipped its first batch of war houses to Nevada. Houses shown in drawing, 1-bedroom and 2-bedroom plans were developed for FWA; 3-bedroom plan and details for private enterprise. Though not the ultimate in materials economy, much attention has been paid to design and plan. Siding and interior plywood are nailed to framing panels



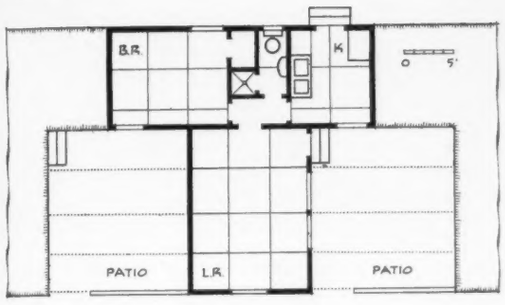
Adaptations of conventional construction to prefabrication have resulted from the "ready-cut lumber" attack, which is concerned mainly with reducing manual operations to a minimum. It is not vastly different from the methods of some operative builders, who first used precut studs, perhaps shipped to the job in packaged units; then preassembled certain portions of a house and delivered complete sections to the job as needed. This type of prefabricator is concerned with the house shell only—walls, roof, floors.

Another type of attack is based on exhaustive research. Some prefabricators, after years of applying cold logic, decided that the ultra-logical modern house of, say, steel and glass, had to give way to wood. Their reasoning is based partly on public acceptance, partly on ease of obtaining and working the material. American Houses' system, for instance, is now wood partly because it is suitable for structure, surface, and finish, because many parts of the house come from one source and can be fashioned by one kind of labor, thus eliminating headaches.

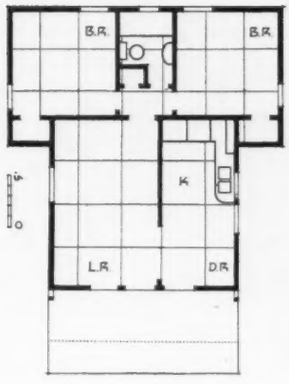
TIONAL CONSTRUCTION ADAPTED . .

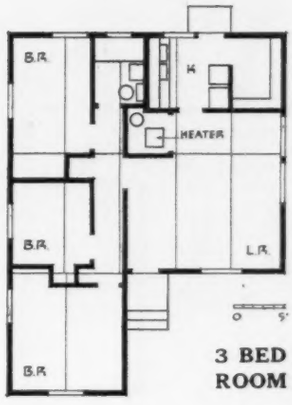
ACHIEVES VARIABLE RESULTS

1 BED ROOM



2 BED ROOM





3 BED ROOM

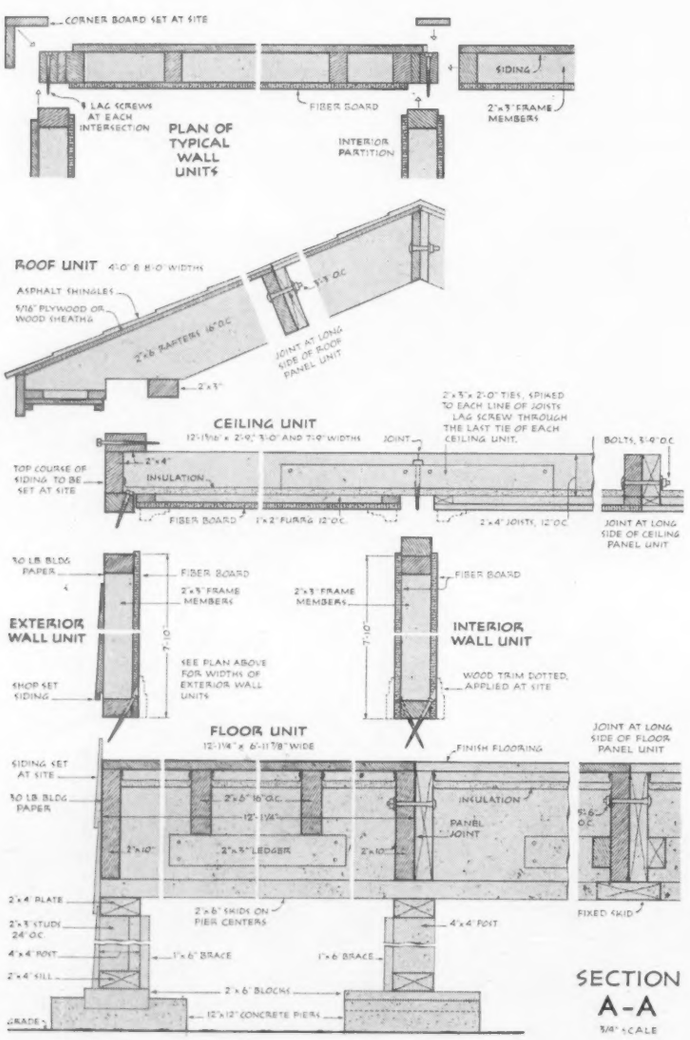
Left, the Houston Ready-Cut House system's FHA-approved house, similar to the minimum dwelling approved for war housing. Right, the Illinois Lumber Manufacturing Company developed a system essentially conventional, but pre-assembled into panels held together by wood gussets and twin-headed nails. Joints are covered with slip shingles

The Green Lumber Company's system uses conventional studs on 16-inch centers, made up into panels faced with plywood inside and plywood or siding on the outside. With local virgin timber exhausted, this company some years ago turned to prefabricated houses. Is this a precedent for war industries when peace comes and vast plants may be idle?

FOLTZ STUDIO

...and FURTHER MODIFICATION

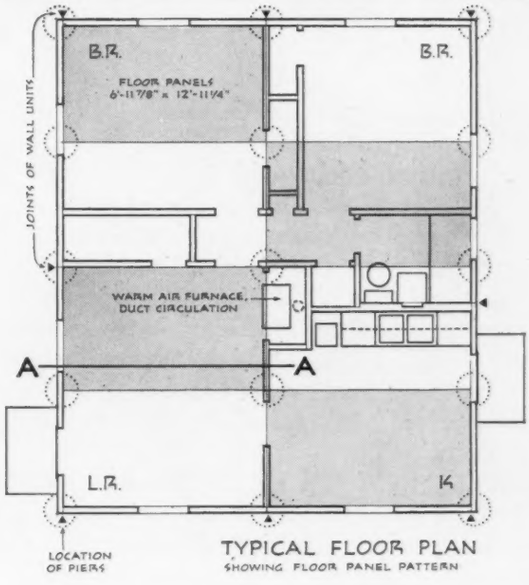
The Precision-Built system uses fiber board in large sizes to form room-size wall panels with doors and windows factory-inserted. War housing plan (illustrated across-page) shows floor panel layout



Precision-built houses, detailed at left, have been built at Ft. Leonard Wood, Missouri; Portsmouth, Va.; Vallejo, Calif.; and other localities

Many prefabrication systems use framing members of reduced size and increased spacing, thus eliminating some waste; others are designed for materials easily obtainable locally; still others, like the PHC Housing Corp. system, which is not yet on the market, use patented devices which fix materials in place flexibly, to allow for normal expansion and contraction as well as repairs, replacement or ordinary redecorating. All these systems use "dry" construction, with at least interiors of plywood, or gypsum, or fiber board.

...OF THE CONVENTIONAL .....



TYPICAL FLOOR PLAN
SHOWING FLOOR PANEL PATTERN

PHIL STROUPE

1

2

ANKERS & YOUNG

1—Precision-Built homes, Vallejo, Calif. 2—Speedwall homes use jumbo plywood sheets, fabric covered if desired, for interiors; walls are jointless except at room corners. 3—General Fabricators' houses have semi-conventional framing with horizontal nailers for horizontal or vertical exterior finish. 4—Hardin & Ramsey's wood sectional "Econo-Bilt" house also has wall panels framed horizontally

3

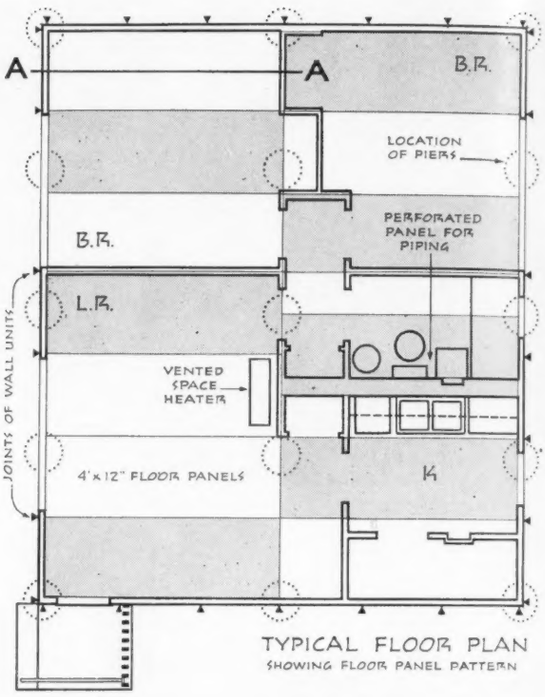
BLASINGAME

4

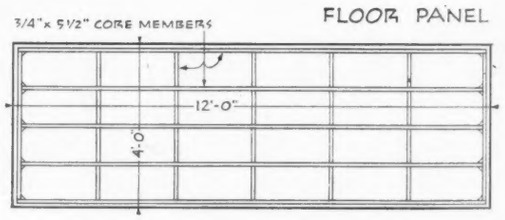
...PLUS UNCOUNTED VARIATIONS

The stressed-skin principle is simple: Lightweight framing members have plywood sheets permanently bonded to them. The plywood serves as the finish. The panel acts structurally like a hollow boxed column or beam, with the surface "skin" bearing its share of the "stress." Nailing plywood to the framing does not suffice; it must be pressure glued, often at high temperature. The glue must be waterproof and chemically inert. Panels are assembled by various patented means.

Advantages claimed for this type of construction, in addition to those claimed for factory fabrication over site fabrication, are: Light weight; elimination of waste material; high resistance to fungus or insect attacks; elimination of shrinkage; elimination of nail holes; reduction of skilled labor needed.



TYPICAL FLOOR PLAN
SHOWING FLOOR PANEL PATTERN

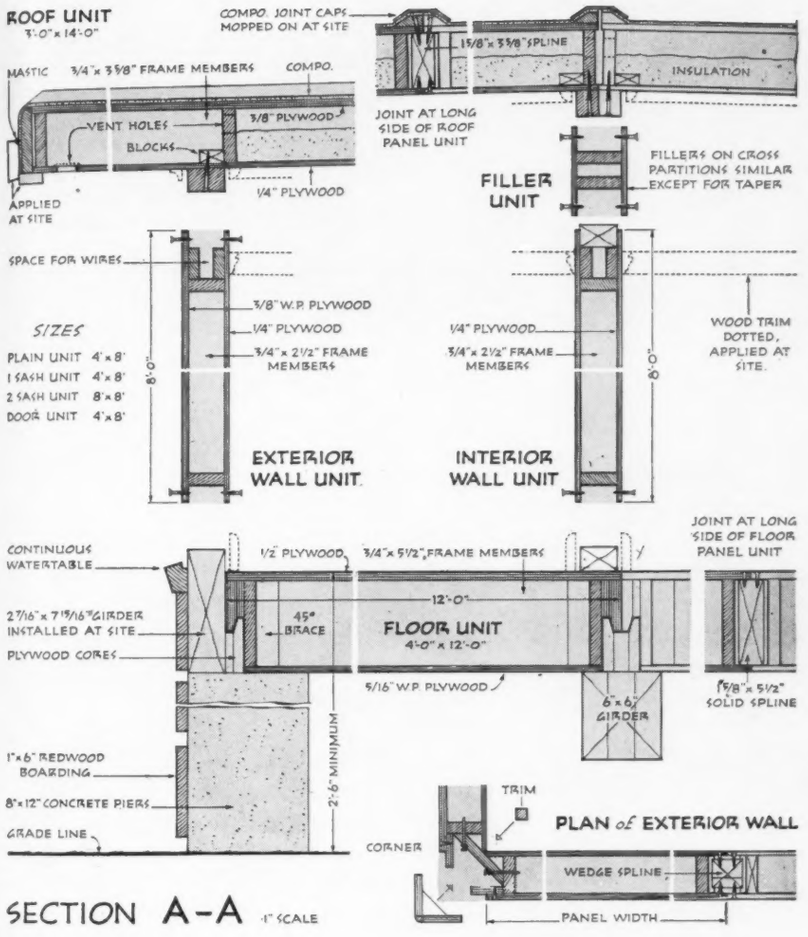


FLOOR PANEL

Plywood Structures' system, typical of many, uses stock 4 by 8 foot plywood sheets made up into stock 4 by 8 foot stressed-skin panels, also half panels and door, window, floor and roof units. Panels, with wiring factory-installed for interconnection in attic space, are assembled with wedged splines

MILES BERNE

ON THE "STRESSED SKIN"...



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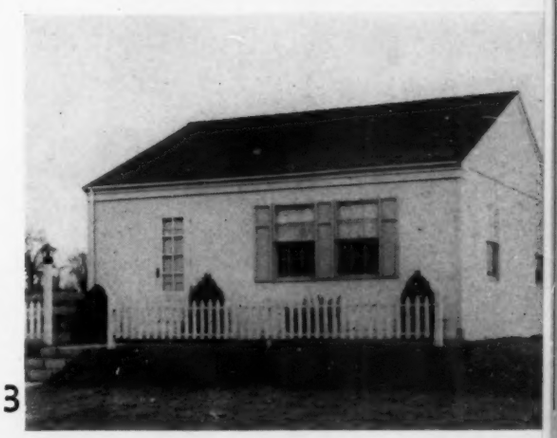

3

4

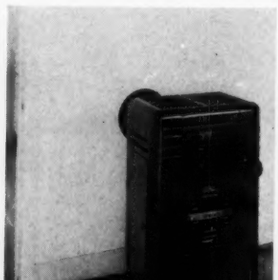
1—Bates Prefabricated Structures. 2—Gunnison Victory Homes. 3—Home Building Corporation. 4—Willis-Way System. 5—Standard Houses. 6—Better-Built Homes. All are variations of the stressed-skin principle, some with conventional materials factory-applied to exterior surfaces. In this case, exterior joints are covered with slip shingles, etc. Some are nationally distributed, others not. Many are almost completely prefinished; Gunnison, for example, has developed a method of rolling interior finish on the panel surfaces

6

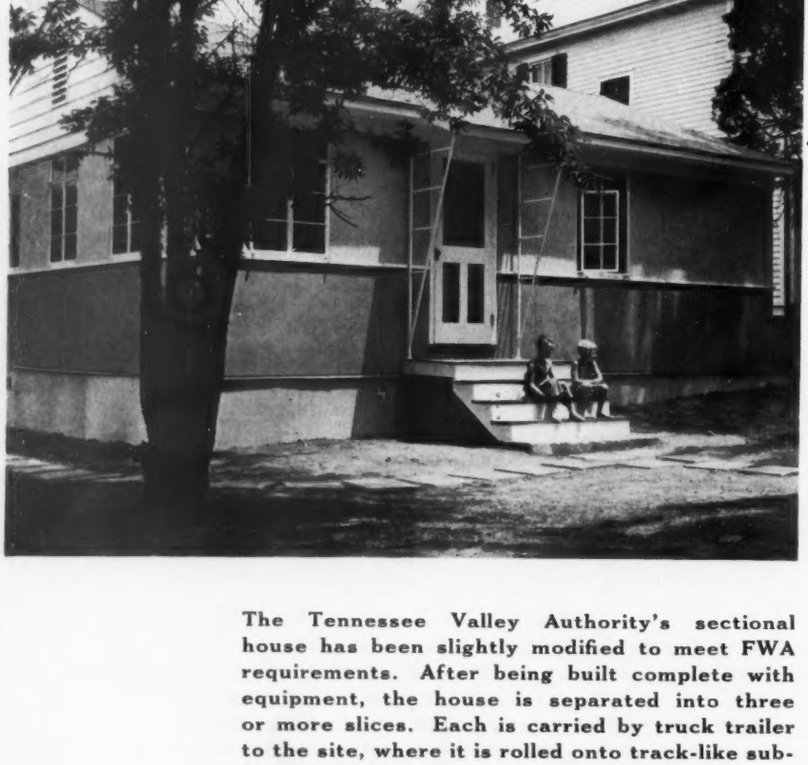
5

ORVILLE K. BLAKE PHOTO

. . . some are DESIGNED AROUND AM



For economy's sake, governmental requirements for placing plumbing fixtures back-to-back, may lead to sterile simplicity in war housing. Closet doors are banned



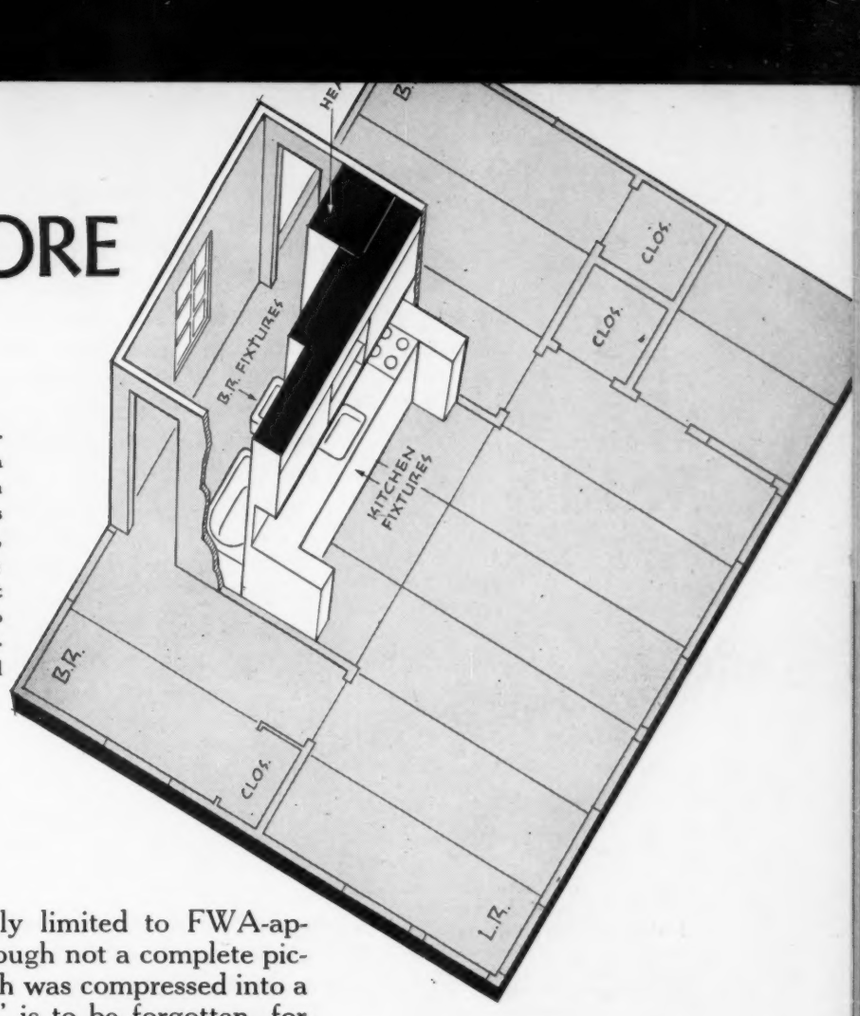
The Tennessee Valley Authority's sectional house has been slightly modified to meet FWA requirements. After being built complete with equipment, the house is separated into three or more slices. Each is carried by truck trailer to the site, where it is rolled onto track-like sub-framing, bolted to other sections. When utilities are connected, the housewife can place furniture

As the photographs above indicate, mere insistence on mechanical simplicity and economy does not always result in an efficient or even passably satisfying house. Some design knowledge has to be applied to the problem. But for war purposes, with production of many kinds of equipment curtailed or shut off, there may be some excuse for the poorly organized kitchen-bath-heater arrangement shown.

Such practices, however, do not affect the validity of the argument for treating equipment as logically as structure. Teague's system provides the purchaser with more than an integrated plumbing - heating - cooking unit; this unit controls the plan as well. Practical considerations —access to the bath, circulation to bedrooms—may limit the variety of planning possible.

But it would seem that a major purpose of the mechanical-core prefabricated house is to offer would-be home owners more and better equipment and greater convenience than they could afford in any other kind of house. Surely the amenities are part of this program. Else why has the farm kitchen-living room been displaced in the conventional home by two distinct areas, in one of which the household can forget cooking odors and dirty dishes?

MECHANICAL CORE



Walter Dorwin Teague's house is of interchangeable stressed-skin plywood panels surrounding a mechanical unit which contains necessary kitchen and bath fixtures plus the heater. Teague claims the house can be economically enlarged, reduced, transported from site to site; has low upkeep cost; and is not too standardized because arrangement can be varied. It is intended for sale direct to consumers, and system will be available to licensees; but designers can not specify standard units to suit individual plans

The preceding illustrations are intentionally limited to FWA-approved "demountable" house systems. Though not a complete picture, they epitomize a construction era which was compressed into a few months. Now the word "demountable" is to be forgotten, for none can agree on a definition. It should be noted that of 46,588 prefabricated dwelling units originally allotted to 68 projects, for which "letters of intent" were issued to 56 manufacturers, 32,298 units in 43 projects were contracted for on April 29th, and 2,630 houses in 12 localities had been canceled due to changes in military programs. At that date none had been occupied.*

Changes in policy, and consolidating housing efforts under the National Housing Agency, have helped and hindered war housing. About the first of May, regional offices were empowered not only to select site architects, but also to determine local needs and purchase houses locally. And wherever houses are not bought as stock units but as adaptations of prefabrication systems to local needs, chances for architectural control seem vastly improved. Also, NHA has decided to choose between prefabricated or conventional houses on the basis of how much skilled building labor is available locally.

Considering the emergency, all this seems sensible. Still, some prefabricators, interested in maintaining their products' integrity, have held Federal "demountable" standards—which willy-nilly have affected the industry—to be neither good enough nor poor enough. Of course, initial requirements may have been somewhat unsound, and misinformation may have led some ingenious prefabricators almost to bankruptcy through premature expansion. Nevertheless, so essential a program had to proceed in some fashion. More important, it is unfortunate that more conscientious prefabricators have not competed directly with slapdash contractors. War-housing eyesores (which might have been improved) may symbolize prefabrication to the public.

But FWA-approved systems are only part of the prefabricated war-housing program; other private and public agencies have used prefabrication, usually with less fuss. As a whole, the program pro-

WHAT DOES THIS MEAN to . . .

- → THE COMMUNITY?
- → THE INDIVIDUAL?
- → THE ARCHITECT?

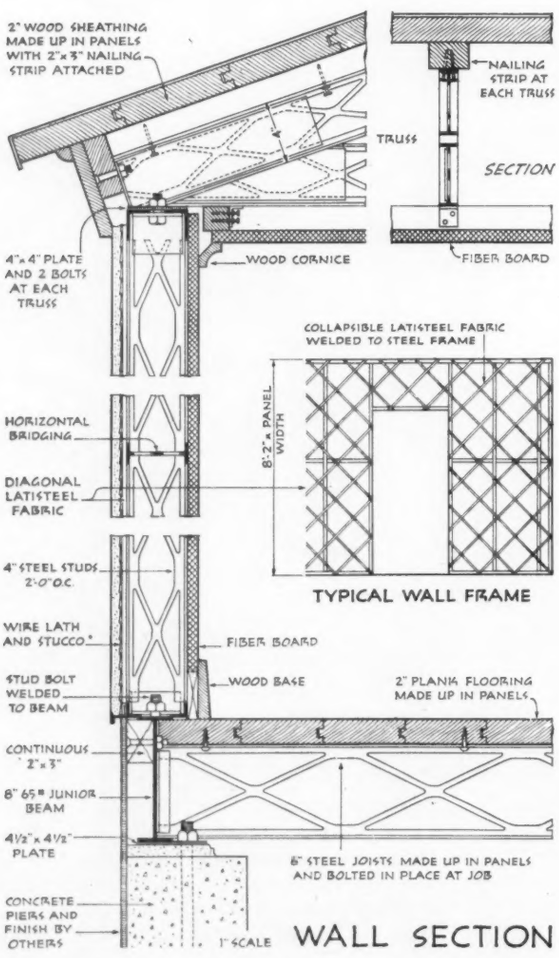
***In May, military departments seem to have cajoled WPB into letting them seize all wholesale lumber stocks for 90 days, thus bureaucratically slapping down prefabricated as well as conventional war housing**

What does the future hold?

vides at least adequate houses, sometimes houses above the occupant's previous level. And some are sad. **Albert Mayer** has helpfully criticized in PENCIL POINTS (May 1942) the generally unsatisfactory site plans. **Arthur Holden,** architect and prefabricator, writes in **"The Octagon"** (April 1942) that architects must recognize expansion, not curtailment, of their design function with the advent of large prefabricated units. Design has also to be humanly domestic, not monumental. The more flexible the prefabrication system, the more easily is pleasant variety achieved by logically, rationally fitting each house to its problem and to the whole.

Individual house occupants will have to get something better, as well as cheaper, than conventional construction offers, or one by one they will abandon prefabrication. Even the Model T Ford, publicized as it was, gave way to more-car-for-the-money. The community may fare worse; thoughtless mass production can spawn as many slums as conventional construction!

Typical of another current phase of prefabrication is the Latisteel house, detailed below. For special circumstances, with approval from housing agencies, these are being turned out on production-line basis for military projects having A-1-A priority


2" WOOD SHEATHING MADE UP IN PANELS WITH 2"x 3" NAILING STRIP ATTACHED
NAILING STRIP AT EACH TRUSS
TRUSS
SECTION
4"x 4" PLATE AND 2 BOLTS AT EACH TRUSS
WOOD CORNICE
FIBER BOARD
COLLAPSIBLE LATISTEEL FABRIC WELDED TO STEEL FRAME
8'-2" PANEL WIDTH
HORIZONTAL BRIDGING
DIAGONAL LATISTEEL FABRIC
4" STEEL STUDS 2'-0" O.C.
TYPICAL WALL FRAME
WIRE LATH AND STUCCO
FIBER BOARD
STUD BOLT WELDED TO BEAM
WOOD BASE
2" PLANK FLOORING MADE UP IN PANELS
CONTINUOUS 2"x 3"
8" 65# JUNIOR BEAM
4½"x 4½" PLATE
8" STEEL JOISTS MADE UP IN PANELS AND BOLTED IN PLACE AT JOB
CONCRETE PIERS AND FINISH BY OTHERS
1" SCALE
WALL SECTION

SOME FUNDAMENTALS AWAIT ACTION

Prefabricated houses can not be much better until conflicts between individual prefabricators —and between prefabricators, labor and the public—are resolved. There are, too, changing habits and levels of taste which, though outside the field, yet affect it. A few arguments:

If building activity declines or is forced into abnormal operations, the break-up of organizations, dispersal of labor, and increasing staleness of unused skills may give prefabrication a real chance.	Opposed to this are public acceptance of tried-and-true Cape Cod Cottages, and potential resistance of strong labor organizations as well as the public to unfamiliar methods and types of design.
With cheap transportation the individual is not restricted to owning one fixed home. Is this an opportunity for the portable home, financed like an automobile, which can be turned in on a new model either as a whole or room by room?	The individual wants to own property—a habit, rooted in agricultural civilization based on land as the productive source, which still controls our tax structure. Will war show us greater worth in possessing productive capacity than in owning land?
Mass production for war of such materials as magnesium, resins and plastics—some new to building and some changing recognized materials into new forms—may make available new, economical construction techniques.	Codes based on the tried and true usually hinder developments. Even performance standards need periodic revision: For instance, with improved artificial lighting, are accepted minimum window area requirements valid?
Power, light, heat and refrigeration can be made to emanate from structural members rather than from job- or plant-assembled units made of materials incompatible with the structure.	Existing manufacturing machinery and organizations are designed for publicly-accepted equipment, and education to enable the public to appreciate intangible, greater values and comforts is costly.
Mass production can lower costs by standardizing, by taking a low profit per unit.	Does standardization mean monotonous rows of houses? We want individuality!
After the war, plants will be available in almost numberless locations. Factory-built houses may save the day.	What becomes of the materials supply industry, with its intimate knowledge of house building customs?
Prefabrication frees the architect from responsibility for niggling, time-wasting detail.	In many cases esthetic satisfaction depends on detail, and on tireless supervision.
A house can be too good. Why put permanent roofs on temporary structures?	The architect designs for owners who build to keep up with the Joneses.

Prepare to Meet your Client

BY Arthur C. Holden

Architect and member of Holden, McLaughlin & Associates. For years, active in New York City Planning and Civic affairs; Chairman, Land Utilization Committee, of New York Building Congress.

"There is a certain relief in change, even though it be from bad to worse; as I have found in traveling in a stage coach, it is often a comfort to shift one's position and be bruised in a new place."
WASHINGTON IRVING, 1824

Understanding the Job. Although most men are aware that continued change is an inevitable consequence of a developing society, few have enough fore-knowledge of the probable direction of change to alter their own position so as to escape being bruised by the jolts to which even a well-ordered society is subjected. Architects are no exception to this rule.

During the long years when America enjoyed a physical frontier expanding to the westward, opportunity lay self-evident before the building industry. The frontier has disappeared only in its physical aspect. Opportunity always lies open to those who can recognize it.

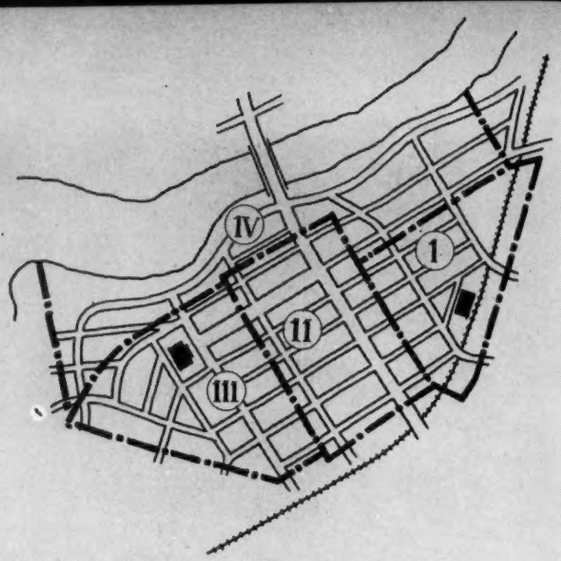
Scarcity and Urgency as Motives. So far as our fathers were concerned, scarcity impelled them to build; urgency of need caused the construction industries to grow to enormous proportions and to play an important part in the development of America. Somehow the things that were needed got done, often without apparent forethought or design. Frequently, the pressure of demand made urgency seem so great that little consideration was given to whether the facilities furnished would outlast their immediate usefulness, or whether they could be adapted to new uses as the needs of society changed.

For at least a decade the profession has been living in the remembrance of things past, discouraged because the ways and methods of our forefathers do not seem workable for ourselves. At first the challenge to national defense seemed to open new opportunities because it created an old-fashioned recognizable "urgency." For the moment, at least, the old ways of doing things again seemed practical. The factors of haste, scarcity, and the threat of rising prices have impelled us to "build for defense" at any cost. We have only vague ideas of how long the facilities which we are creating may serve us. We have only vague ideas of how we may discharge the obligations assumed to pay for the work done.

While the opportunities opened up by war work are very real, we shall consider here primarily the future needs of society, because it is primarily upon the ability of the construction industry to serve society that the progress of our profession depends.

It is necessary to think about what sort of clients architects are to have

CITY INTO QUARTERS



QUARTERS INTO DISTRICTS

Though architects have habitually applied their skill to improving the arrangement of the "cells" or rooms out of which buildings are composed, few of them have concerned themselves with the cellular organization of the city, which is naturally divisible into "quarters." Though these quarters do not have precise legal boundaries, they are determined by topography, by the character of the activities within them, and by the lines of communication. Every quarter of a city can be considered as made up of districts, which in turn are divided into sub-districts or neighborhoods. Neighborhoods are com-

in the future. In the past, Architects knew that they had to go to people with money, able to pay for the things which they thought worth doing. Must architects in the future wait around for men who have money, and must they continue to wait until men with money become convinced that there is such a scarcity of buildings that it is worth while risking construction? After the boom of building for defense, is there likely to be need for further construction?

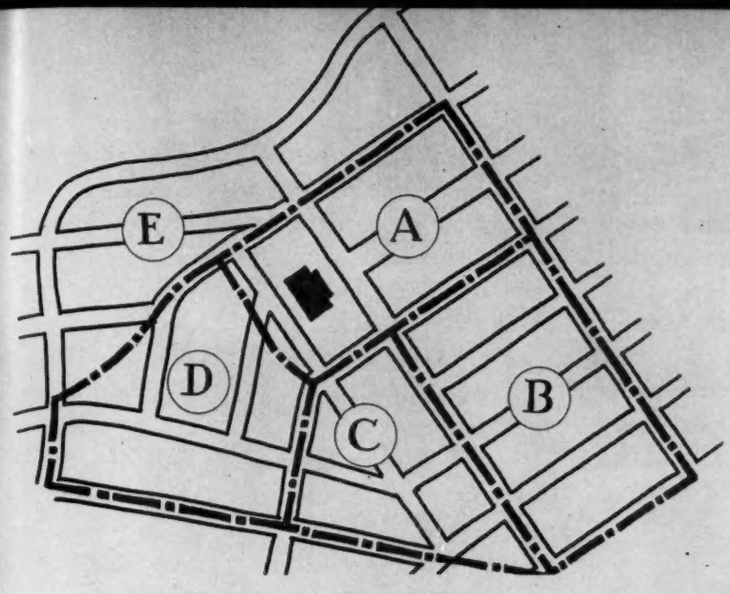
We lack a clear understanding that all work and all human services are part of a great system of interchange which differentiates civilization from predatory barbarism.

Our increased productive capacity has wiped out the necessity for scarcity. The concept of value based upon a relation between scarcity and desirability is now inadequate. Supply and demand are no longer measured in terms of urgency but in terms of ability to assign and interchange services. The problem of the future is how to manage and direct our potential productive effort.

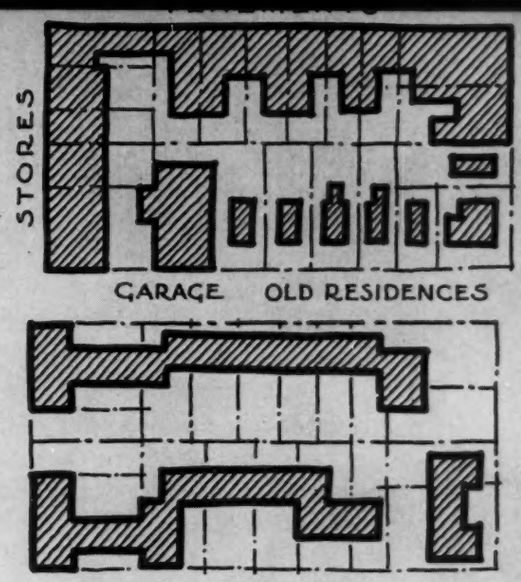
We Must Adapt Ourselves. The architect in this modern day faces a dilemma. Like the traveler in the stage coach hurrying over inadequate roads, the architect has been subjected to "jolts and bruises" from unexpected directions. But like Washington Irving's traveler, he still has it in his power to shift his position. The architect of today is better trained than the architect of any previous time. He is technically better equipped to serve society, and he has developed perhaps a greater sense of social responsibility. Full use cannot be made of this increased competence unless architects are alert to adapt themselves to changing conditions and to arrange the terms on which they serve so that the public can both appreciate and afford their services.

Today our cities are built. There is no quantitative lack of shelter. There is much vacant space. There is waste space within buildings; there is waste due to bad relationships between buildings, and the economic use of land. Because of obsolescence and depreciation, there is a great deal of space obtainable at prices lower than prices needed for new work. Although there are always a few who can command the best and pay the current price, the great majority of people seem doomed to the use of makeshifts. Hence the trouble is reduced demand.

It is no answer to mutter the mysterious catch words, "supply and demand," with the implication that the supply of architects must inevitably be cut down to the number that



DISTRICTS INTO NEIGHBORHOODS



BLOCKS INTO BUILDINGS

posed of city blocks and the blocks themselves are made up of the cells known as plots of property which have legal boundaries. Actually, the cellular divisions of the blocks are three-dimensional buildings and the voids between them. Shown above at right is a rundown block and a redeveloped block in which solids and voids have been rearranged for greater amenity. In the replanning and redevelopment of our cities architects need to consider the several intermediate stages of the cellular development, both for purposes of planning and for organizing the life of the city

can be maintained by the willingness or ability of a few to authorize new construction. The building industry has the technical capacity to create facilities, to satisfy changing modern needs. Because old methods of profit as a result of scarcity are gone, must the public accept declining standards, and must the construction industry languish? This is a challenge to the architect, even if the fault is economic and lies outside his accepted sphere of usefulness. Technical men have been active in pointing out the things that might be done and, indeed, the things that **ought** to be done, but technical men have not yet succeeded in showing the present generation **how** to obtain the great capital improvements which are now desirable.

Understanding! A Prerequisite of the Modern Pioneer. Opportunity has always been open to the pioneer. It is still open; but the direction which pioneering must take can no longer be explained by such easily understood catch phrases as, "Young man, go west!" There is a Biblical injunction which suggests the necessary preparation for those who would pioneer today—"My son, get understanding!"

The architect knows that before the days of rapid transportation, it seemed necessary to crowd urban inhabitants into tightly-built shoddy tenements and to sacrifice light, air, and space. He knows that the sort of suburban homes which were practical forty years ago are obsolete now that the automobile has changed family mobility. The architect knows, too, that economic and social changes have taken place. Families are smaller, and a smaller proportion of the things upon which the family depends are produced within the home. Residential communities are less closely related to churches and more closely related to schools, new movie houses, and the essential nucleus of service stores. Business communities are more separated from warehousing and physical trade than they used to be; manufacturing communities have increased in importance, and wholesaling and retailing centers are becoming more sharply defined.

When an industrial plant moves from the city to the suburbs it induces changes in the business life of the community into which it moves. New housing may be needed for its workers and perhaps new facilities for transportation. At the same time, the facilities which are abandoned in the city must be adapted to new uses. Changes in habits of life on the part of the well-to-do affect the future of whole communities.

The continued change in the organism of both city and country life clearly creates building jobs which ought to furnish opportunities for architects. Often the need which the architect can satisfy goes unrealized. Why is this?

Surely, the architect has taken the lead in criticizing the shoddy appearance of urban communities and the lack of harmonious neighborhood design. **But the emphasis which the architect has placed upon the aspect of buildings has proved to be the boomerang which has cleft the profession and delayed a popular understanding of the part which the architect might play in the organism of design.**

How, then, can the architect—who has an analytical, creative, and orderly mind—go about rectifying the situation?

First, the architect must know where to direct his appeal; next, he must know how to apply his powers of visualization in such a way as to arouse the desire for realization. In doing this he must, above all things, keep contact with reality, so as not to risk the dismissal of his ideas as impractical dreams. **The architect must not only visualize but he must be ready to demonstrate that ways and means can be found to achieve the results desired.** There are, of course, many who contend that architects should confine their talents to the task of modeling or styling construction so that it will be well-planned and beautiful. If this be true, the place of the architect may soon be subordinated to the decisions of men who measure possibilities in terms of outworn standards.

If architects consider their place in society one of leadership, they must realize that they must depend solely upon themselves to establish and confirm it.

To exert this leadship there are three essentials as follows:

1. Architects Must Recognize and Understand the Functions of the Various Groups Which Compose the Community.

The architect must, on the one hand, understand the functions which are performed by the diverse groups of which his own industry is composed and, on the other hand, understand the requirements of outside groups, so that he can mold the processes of his own building industry to satisfy the needs of the outside groups which it serves. Only by a thorough understanding of function can an architect satisfactorily analyze the problems which are presented to him. Only by recognizing their economic and social functional significance can an architect master the physical forces which must be utilized to reach a solution.

2. Architects Must Recognize Their Immediate Clients and Win Their Confidence.

(a) While a certain amount of work may continue to depend upon a wealthy group of patrons, the number of architects who can depend upon this character of work will, in all probability, be greatly reduced.

(b) In contrast, the proportion of public works and public buildings is likely to increase. Architects here must face the inclination of public officials to build up politically dependent technical staffs rather than to call on the independent practitioner.

(c) Since the depression, there has been less promotional or equity capital available. The architects of the future must seek, perhaps even help to create, new types of entities which will be able to develop projects to meet future needs in the residential and in the business and industrial fields.

(d) Due in part to properties taken back on foreclosure, a much greater responsibility for initiative is likely to rest with the real estate departments of the savings banks, insurance societies, and other fiduciaries. Architects must study how to serve this new type of client.

(e) The man of moderate or small means has learned to assert himself and insist that he should enjoy the benefits of improved technical capacity. Architects should study how best to meet the needs of the low-income groups in the cities, the suburban areas, and on the farms.

3. Architects Must Interest Themselves in the Public. They Must Convince Their Fellow Citizens:

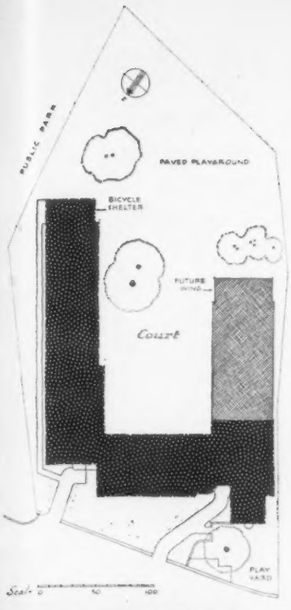
(a) That it is not only possible but advisable to think ahead and plan for construction in advance.

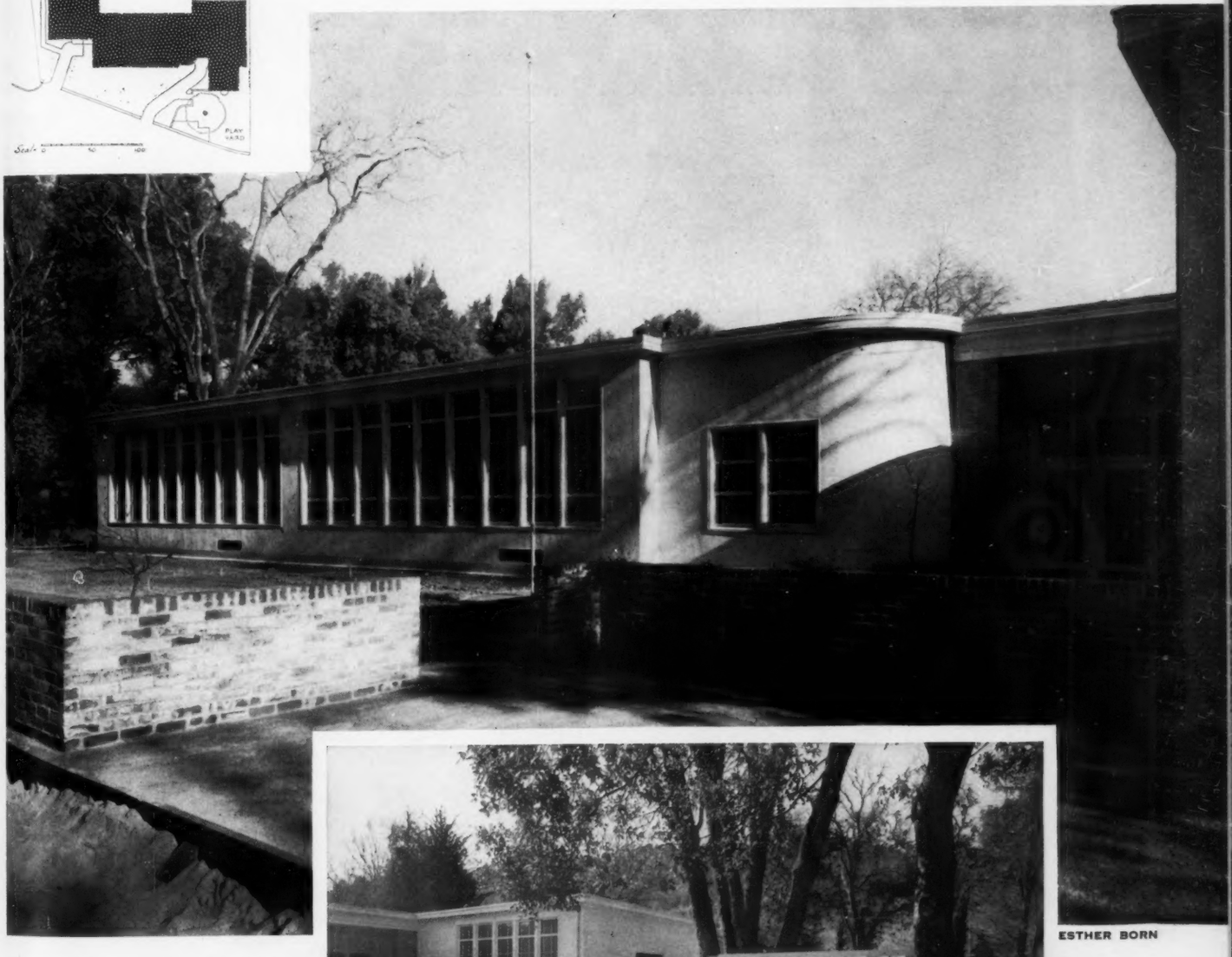
(b) That the best and most economic construction is produced by thinking ahead and proceeding according to an orderly plan.

(c) That the public can afford constant improvements if these are well conceived, waste eliminated, and the work executed according to an orderly plan.

THE ROSS SCHOOL

Carl F. Gromme, Architect, San Rafael, California

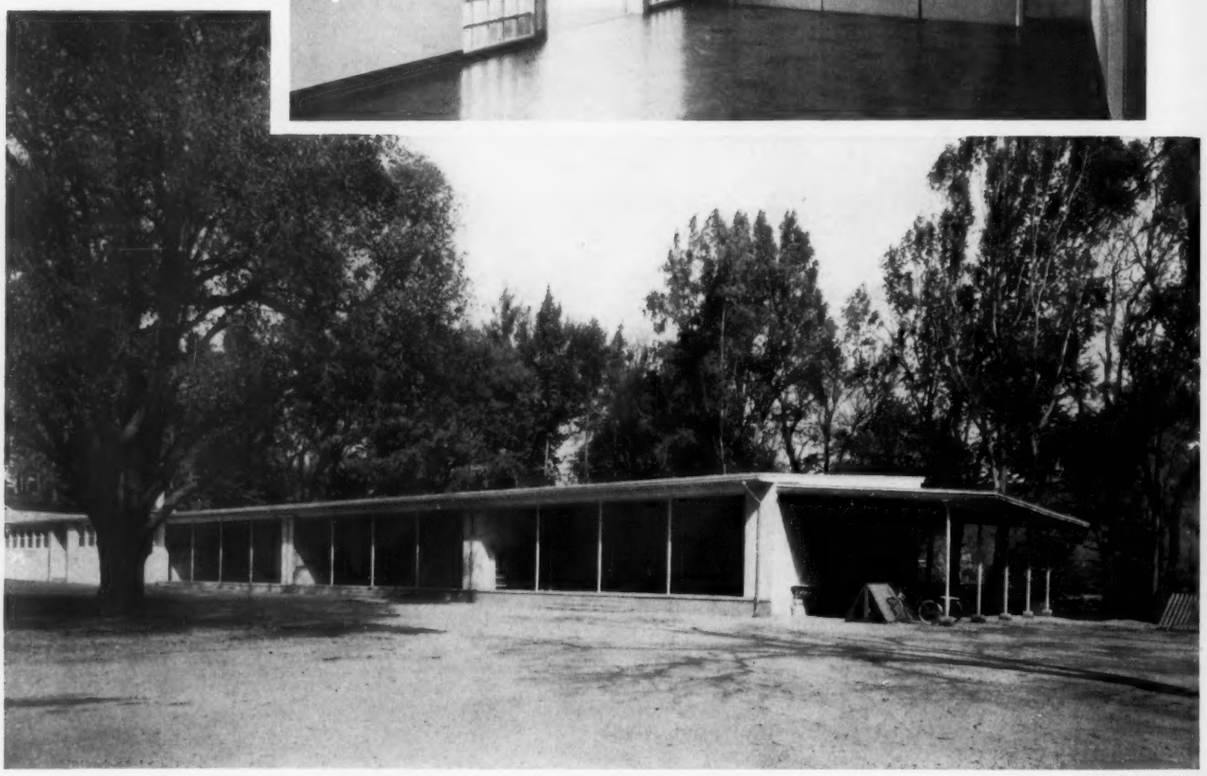




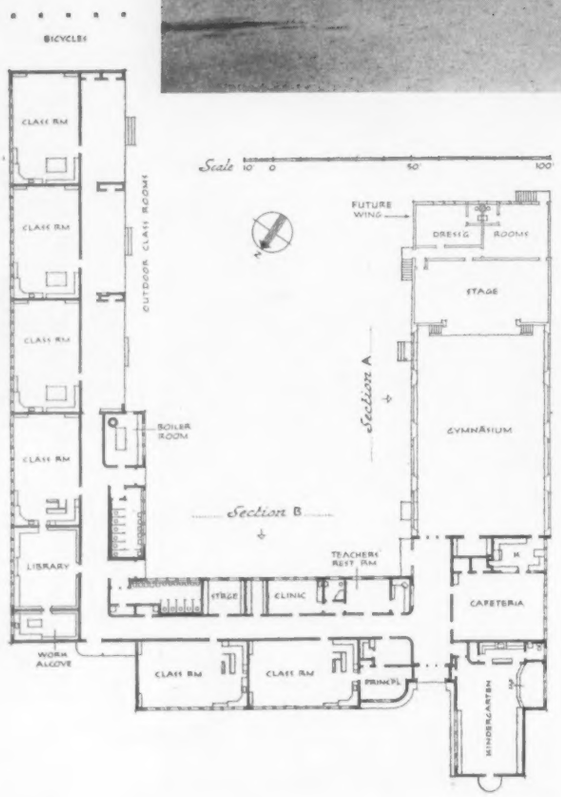
ESTHER BORN

THE NEW GRADE SCHOOL in Ross, California, exemplifies a type of unaffected building—of materials readily available there — whose plan and structure reflect care for the health, happiness and safety of children. It was built by Carrico & Gautier, San Francisco, and Harold M. Engle, Structural Engineer, also of San Francisco, was Consulting Engineer

OUTDOOR CLASSROOM wing can be seen through the court-yard door of the Entrance Lobby. The mural is by J. Moya Del Pino, of Ross



ESTHER BORN

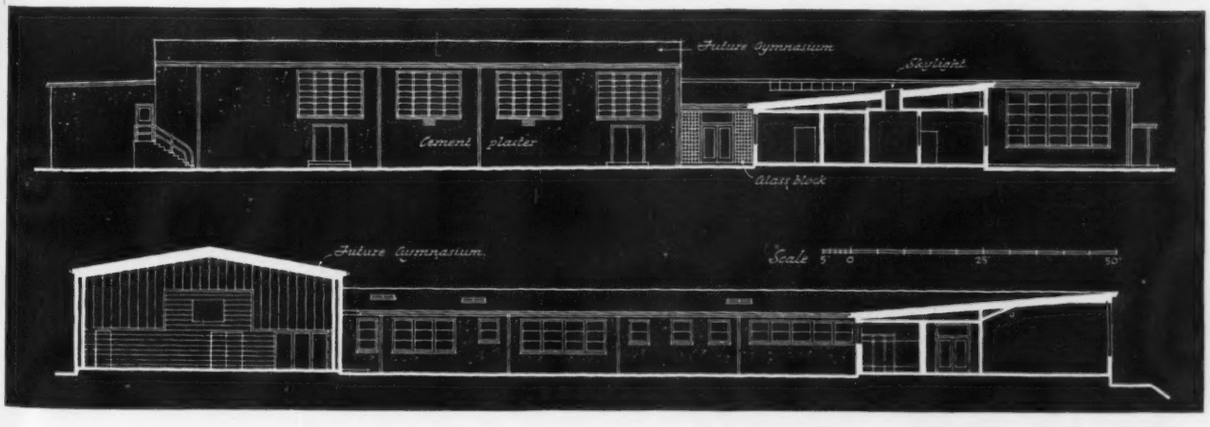


The school had an average daily attendance exceeding 200 this year and is expected to accommodate 250 next year. In a future wing directly behind the Entrance Lobby there will be facilities for assemblies, dramatics, and gymnasium classes (plan at left). The designed relation of this wing to the present building may be judged by the sections shown across-page.
The exterior is light buff stucco with wood trim painted off-white —the doors painted a cool, medium blue to make an agreeable color accent. Note the convenient provision for bicycles (above)

DWELLING UNITS ALONE

ESTHER BORN

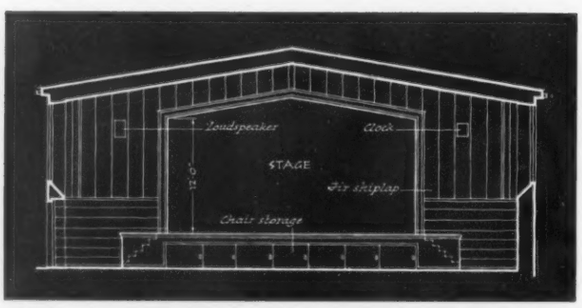
Thirty-five children work, play, and rest in the KINDERGARTEN



DO NOT MAKE COMMUNITIES. THERE MUST BE SCHOOLS • • •

ESTHER BORN

TYPICAL CLASSROOM is planned so that the front is free for instruction and demonstrations—storage space, laboratory counter, and teacher's desk being placed behind the pupils' desks (photos above and across-page). Color scheme in Classrooms: gray-blue walls (brightened to greenish-blue in rooms facing north); gray-blue trim, cabinetwork, and cork board; white ceilings; dark brown floors; black base finish throughout



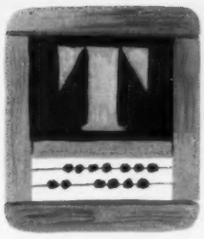
When a **GYMNASIUM-AUDITORIUM** is added to the school it will be equipped with a stage, simple back-stage facilities, and chair storage beneath the apron—this section and those across-page

MATERIALS AND EQUIPMENT

Footings	REINFORCED CONCRETE
Foundation Walls	REINFORCED CONCRETE
Terraces	BRICK or CONCRETE
Wall Insulation	INSULATING AGGREGATE in stucco
Wall Construction	2″ x 6″ STUDS, sheathed, STUCCOED; PLASTER inside
Floor Construction	CONCRETE SLAB on grade or crushed rock fill
Roof	BUILT-UP, 5-ply, graveled
Roof Insulation	4″ MINERAL WOOL
Sheet Metal	STAINLESS STEEL, 18.8, 26 ga.
Glass Masonry	GLASS BLOCK, 8″ x 8″
Windows	PROJECTED STEEL SASH, SSB glass
Finished Floors	ASPHALT TILE laid on slabs; rubber base
Interior Walls	KEENE'S CEMENT PLASTER, colored
Ceilings	Acoustically treated
Plumbing	CAST IRON soil pipes; COPPER water tube supplies; institutional type fixtures
Heating	UNIT VENTILATORS, convectors; full automatic control
Hardware	OIL-RUBBED BRONZE equipment; panic bolts
Electrical	RIGID CONDUIT; institutional type fixtures
Painting	ENAMELED woodwork on interior, PAINTED woodwork on exterior. (No paint on walls or ceilings)
Other Equipment	SHEET CORK tacking strips; electric clock system; intercommunication and loud speaker system

ESTHER BORN

LIBRARY of the Ross School provides a quiet, restful background for study or collateral reading: its fresh coloring the same blue-and-cream scheme used in the Classrooms. Corridors of the school are painted a light cream color and the Principal's Office and Teachers' Rooms are pale buff. Brown asphalt floor tile in several shades is used throughout, except in the Kindergarten where blue asphalt tile adds to the gaiety



The NEW schools

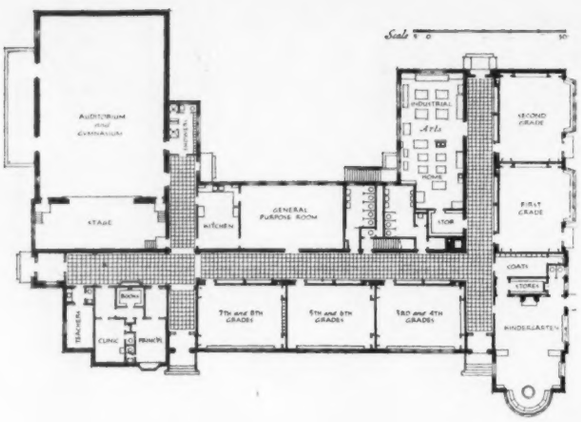
By TALBOT F. HAMLIN

Two elementary schools of similar program and similar scope built recently in different parts of the country show how completely different the results can be within the same type of program, when it is approached in different ways. The resemblances between the two schools are in many ways obvious. Each is for six grades and a kindergarten; each is one story in height; each is designed with a combined gymnasium-auditorium; each has a roughly U-shaped plan. But there the resemblance ceases. In every other respect these two schools seem to come from different worlds. In appearance, both outside and in, they reveal such a **striking opposition in basic assumptions and points of view** as to make one wonder how both could be American schools of the 20th Century! What could be the effect on a child who had part of his education in one, part in the other? What suppositions would he be led to make unconsciously about Life and the two communities?

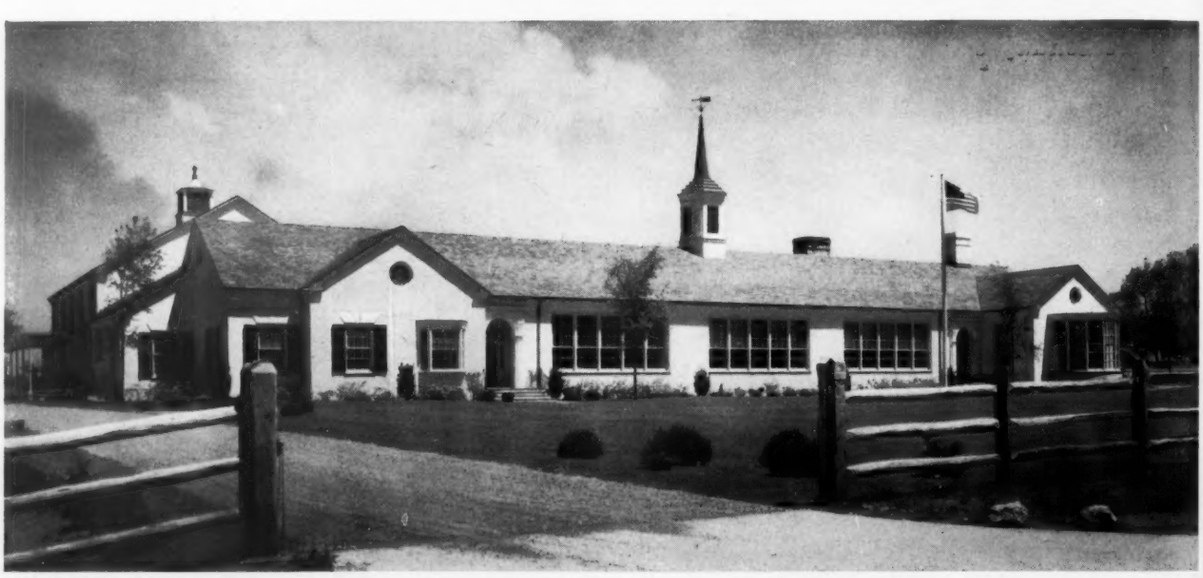
ROSS SCHOOL in California is a characteristic example of a large class of schools now found in the West. **Manifestly unostentatious, it seems to be designed primarily for its usefulness to children.** Its esthetics are those which result from this basic choice, and the quiet way it takes its place among the trees on its site—becoming not a monument but a piece of the landscape itself—seems to be expressive of a kind of fundamental modesty on the part of its designers, which is an appealing and encouraging note in American architecture. Large windows and simple horizontal lines, both in the interior and on the exterior, everywhere control the design. The result is a pleasant clarity restful to the eye, suggestive of ease and pleasant repose. One feels that children in such rooms as these are very much themselves; take these quiet rooms with their simple areas of clear color and make them their own without strain. These are rooms children would come to love. Such simplicity and quiet attractiveness in their work home tends to stimulate in pupils cooperation rather than competition, pleasantness rather than "naughtiness."

The basis of the classroom plan is that concept of **combined work and study** which we associate with so-called Progressive Education. Each classroom is really in two parts: a working portion at one end, with long horizontal cupboards, drawers, and working areas; the other end free for the placing of school desks and chairs, fundamentally conventional in pattern, yet movable. Characteristic of this new feeling in education, the teacher's desk instead of being at the front of the room is at the rear, acting as a "connection" between the two portions. Even the blackboards and bulletin boards in these rooms are more interestingly composed and more thoughtfully handled than in the usual schools! One notices slanting exhibition boards at the front of the room on each side of the blackboard, designed to give the maximum visibility and the best light.

All of this is contrived, of course, to achieve workability; but the whole building is **more than a functional machine.** It seems most carefully studied to give especially within, proportions that are lovely. There is a real sense of the value of the related rectangles of different colors. The ceiling surfaces all slope to follow the pent roof, giving windows of unusual height; but any tendency toward restlessness is counteracted by stressing horizontals everywhere else. Actually this slope seems only to give a kind



The accepted elements of "charm" in the carefully-tended Early American neighborhood of the JERICHO SCHOOL, on Long Island, seem to be whitewashed brick, painted blinds, picturesque roof lines, hewn timber fences, and other rustic cliches. This school, designed by Godwin, Thompson & Patterson, New York, and built by Andrew Weston Construction Corporation, New York, has all of these; but at the same time meets progressive school standards as interpreted by Dr. N. L. Engelhardt, of Columbia University Teacher's College, who served as Educational Adviser to the Architect. The plan (left) shows how the exterior reflects the various elements of building—the auditorium-gymnasium at the rear, the Intermediate grade rooms across the front, and the Primary Department off in the east wing



WURTS BROTHERS

of living quality to the rooms without in the slightest disturbing their quiet balance. The same quality runs through the attractive library and the kindergarten, with its raised platform and its door leading directly out to the kindergarten playground. (See page 79.)

The plan itself shows an admirable arrangement of the school necessities—the principal's office and the teachers' room close to the chief entrance; and the children's toilets centrally located for use from either the classrooms or the outside playground. The whole sense of the plan is open and the plan seems to be the reverse of that of the old-type, carefully disciplined school with its centralized entrance. Everything seems to be done, in fact, to tie together the outdoors and the inside. Of course this is a kind of adjustment which is the direct result of the California climate, where outdoor teaching and outdoor playing can be carried on through most of the school year. In colder climates a different plan would undoubtedly result; what seems in this Ross school a thing for architects to study and adopt is the attitude of **complete acceptance of the conditions of the problem as the elements of the design.**

The exterior is perhaps less distinguished than the interiors. There are perhaps unnecessary complications in the moldings at the eaves, and the curved office of the principal seems slightly intrusive. Even some of the details on the interior may not be great art. But none of these destroy the basic effect or diminish the essential appeal of this building as a building designed for children; one which will actively serve to stimulate their social and esthetic development.

JERICHO SCHOOL, on Long Island, was planned with the best and most progressive technical advice. Its standards of room area are as stringent as those of the California School though the "activities" have been removed from the classrooms themselves to a separate room, one end of which is designed

for home economics and the other for handicrafts. The Jericho school, like that at Ross, has movable desks and ample storage.

And yet how totally different are these two buildings! For in the case of the Jericho school one feels at once the impact of alien **imposed conceptions which have nothing to do with children or education.** Seen from a distance, the school has forms of a farm group, and this effect, pretty enough, is emphasized by the rustic hewn-timber fence that surrounds its grounds. The auditorium-gymnasium becomes the stable or the barn, the adjacent corner would make a good farmer's cottage of 15 years ago, and the rest looks like sheds for smaller stock and for storage—into which large windows have somehow happened to be punched.

This resemblance may be a pure accident, yet the form of the two cupolas—the square one over the gymnasium and the tall, thin one over the lower portion—and the whole massing of gable and roofs which together make up this effect are not accidental. They are carefully composed. If the desire to imitate a farm group was not consciously present, at least this combination of forms was strongly fixed in the architect's mind—probably under the headings of "picturesqueness" and "harmony with the landscape" and "harmony with the surroundings"—so that the resemblance in the final building is obvious. With its long roofs and its white walls **it is a pretty bit, but it is not a school.** That children pour out of the doors instead of horses or sheep is an anomaly.

A similar kind of psychology—the design of pretty bits instead of the design of a school—has affected the entire building outside and in, kindergarten, classrooms, and auditorium alike. I also perceive that one can trace accurately in these interiors the actual impediments to design which such preconceived approaches bring with them. The picturesque exterior somehow, despite the best will in the world, gets into the inside of the building, and the **simplicity and clarity I take to be the fundamentals of designing for children** are almost inevitably destroyed. Little windows designed for domestic effect or appearance, or in order to create symmetrical Colonial compositions, frequently look queerly out of place within. To cite but one example: the little octagonal windows on either side of the gymnasium-auditorium door. Similarly the breaks in the wall-line necessitated by the exterior composition create interior difficulties. For instance, in the kindergarten the whole charm of the curved bay is compromised by the breaks in plan which lead up to it and, if one may judge from the furniture shown in the photographs, have created

TYPICAL CLASSROOM is well-lighted (white Venetian blinds of metal help to diffuse light) with closets and an alcove provided at the rear for storage and display of class work, leaving the front clear for teaching and demonstration. Each teacher was consulted on the color scheme for her room. The inexpensive window draperies were included as agreeable color accents

KINDERGARTEN has a fireplace, a large and light bay window around an indoor garden, a linoleum floor with patterns for elementary games, and a cheerful color scheme. **AUDITORIUM** chairs are stored on trucks under the stage when the room (left) is used as a **GYMNASIUM**. The 7-foot wainscoting is cork tile. Walls of concrete block make an interesting pattern

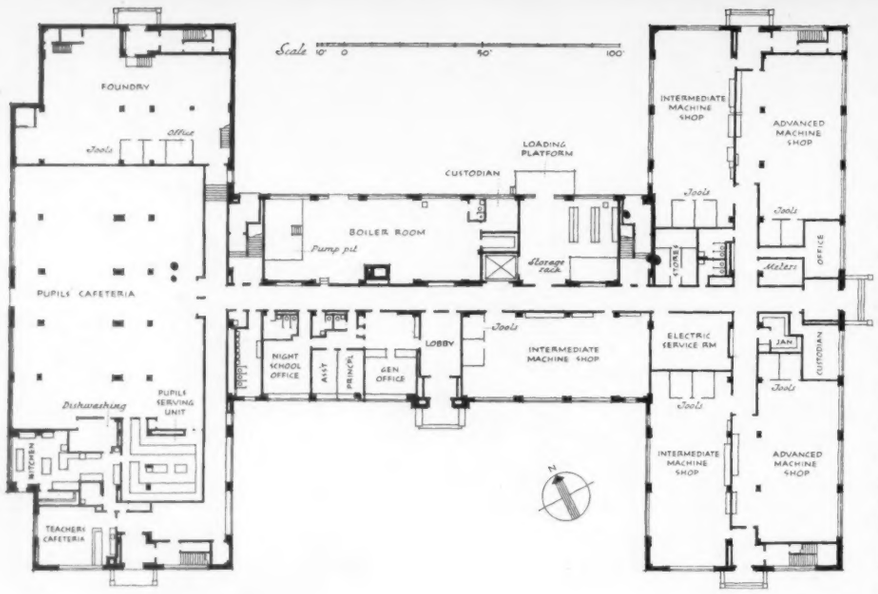
MATERIALS AND EQUIPMENT

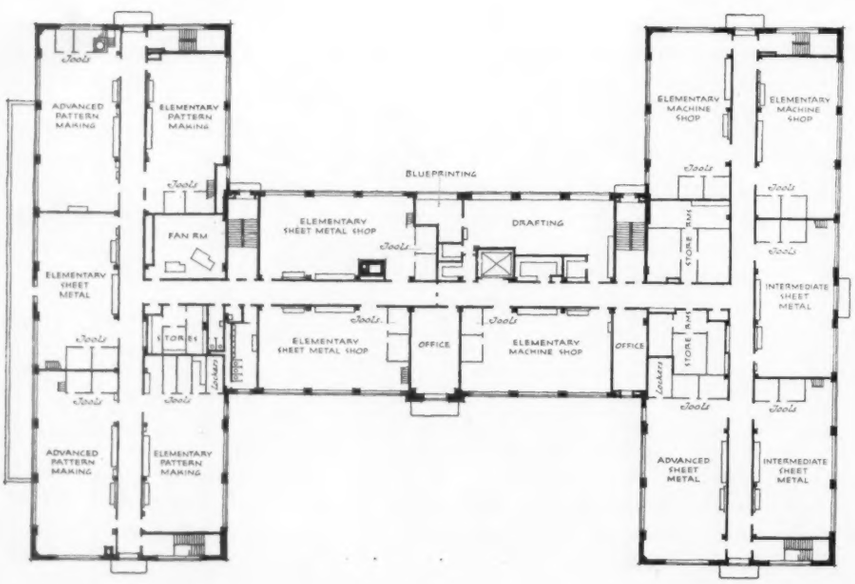
Footings	REINFORCED CONCRETE
Foundation Walls	REINFORCED CONCRETE
Waterproofing	PREFORMED DAMPPROOFING UNITS
Exterior Wall	COMMON BRICK, whitewashed
Floor Construction	REINFORCED CONCRETE with WOOD FLOOR over
Floor Finish	LINOLEUM (kindergarten); RED BEECH (classrooms and auditorium); ASPHALT TILE (corridors); CORK TILE (principal's office, waiting room, clinic, book room, teachers' room)
Interior Wall	CONCRETE BLOCK
Interior Wall Finish	CORK TILE, 7′ high with PAINTED CONCRETE BLOCKS to ceiling (auditorium); handmade GLAZED TILE dado with CORK STRIPS above (corridor); PLASTER (principal's office, classrooms, waiting room, clinic, book room, teachers' room); CEMENT FINISHED (basement)
Roof	VERMONT BLACK SLATE; BUILT UP; also, BUILT-UP OVER CINDER FILL and 4″ concrete slab
Ceilings	Acoustically treated
Sheet Metal	COPPER flashing and gutters (exposed copper is lead coated)
Glazing	CLEAR GLASS (double hung and fixed sash used)
Terraces	FLAGSTONE (also used for entrance porches)
Hardware	Institutional type
Lighting	BX CABLE; school type fixtures
Plumbing	CHROME STEEL built-in lavatories (all classrooms); STEEL and BRASS pipe
Heating, Ventilating	One boiler divided into two sections—one controls the heating and ventilating of auditorium, the other covers the rest of the building; direct heating by means of radiation, high velocity outlets in each room, lock thermostats, boiler and oil burner
Other Equipment	Reversible blackboards and bulletin boards, movable furniture, metal Venetian blinds, figured draperies, enameled lockers built in corridor walls, fireplaces in kindergarten, program clock and bell system, septic tank, wood blinds with fixed slats on exterior

definite difficulties in room arrangement. The result, too, in matters of detail has been a complicating element. Thus the arched recess in each of the classrooms, with its little carved impost and key blocks, seems to have been designed as an acceptable Palladian elevation rather than as part of a classroom; it seems somehow so manifestly out of harmony with the big windows, the lighting fixtures, and the blackboards and bulletin boards as to form discord rather than beauty.

One may ask why in a rich farming country a school should not look like a farm group; provided it had good composition and formed an attractive note in the landscape. Does it seem forced to suggest that the reason lies in the fact that **this resemblance is not fair to the children?** Is there not a possible beauty inherent in the whole concept of elementary education itself, or in the highest ideals of modern education, which is more inspiring, more human, and more noble than the inspiration to be derived from imitating, even adroitly, other types of buildings designed for other uses?

MACHINE AND METAL TRADES HIGH SCHOOL on First Avenue in New York City is an achievement of an entirely different sort. Here is perhaps the most effective, even the most beautiful, of New York City schools built within recent years. The long horizontals of its First Avenue front and the simple patterning of its masses, the attractive studied feeling of all its details are an almost perfect expression of its problem. It is slightly factory-like, yet not at all a factory; it is slightly school-like, yet by no means the ordinary secondary school. The openness and the horizontality of the windows of its shops somehow express the big areas within. The clean neatness of its detailing has some of the quality of good machines. The material is pleasant, the handling of the projecting slabs over the smaller doors direct, simple, and well-proportioned, and the metal letters



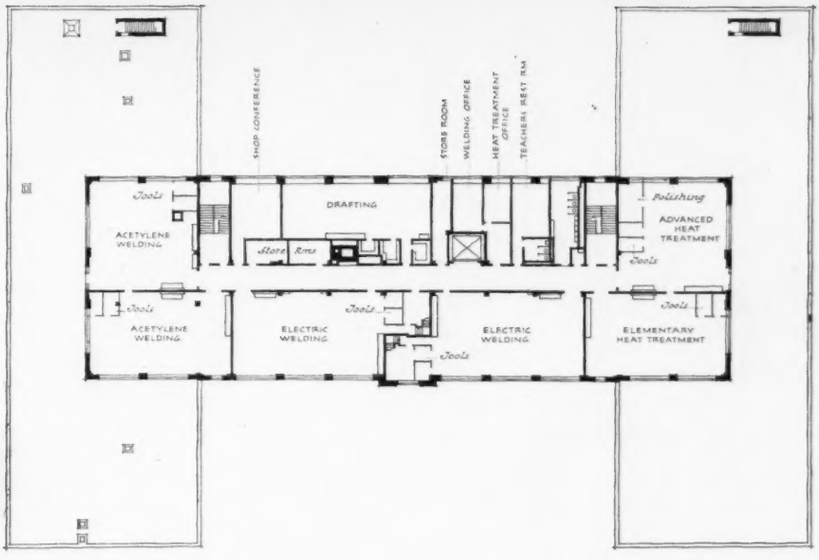


along the First Avenue front are agreeably spaced and tell their story with direct simplicity.

There is a quite beautiful sense of abstract proportion to be seen in the relation of the long windows to the spandrels and coping; in the vertical dimensions of windows and wall throughout. The smaller windows of the toilets and minor rooms are attractively placed to tie together the higher central portion and the wings, and the exterior reads as a perfectly simple externalization of the plan. It is this organic quality which is more than anything else responsible for the reality—one might almost say the authority—of the result.

With all of this creative and forward-looking beauty, it is the more unfortunate that there remains one sign of **conventional, leftover, imposed patterning.** That projecting vertical central entrance motif, with its small windows connected by dark spandrels, seems to express a vertical element. The idea that a building as large as this demands an impressive central pavilion is one of the old-fashioned ideas last to be discarded by architects. A comparison of the south face (across-page) with the east elevation on First Avenue (above) will show at once the additional power and beauty where the central emphasis is subordinated.

MACHINE AND METAL TRADES HIGH SCHOOL, New York, designed by Eric Kebbon, New York City School Architect, is "slightly factory-like, yet not at all a factory; slightly school-like, yet by no means the ordinary secondary school." This clean-cut building of pale buff brick, accented with dark green terra-cotta pier facings, on a prominent site clearly has authority



MATERIALS AND EQUIPMENT

Floors	REINFORCED CONCRETE
Foundations	REINFORCED CONCRETE
Wall Construction	BRICK on CONCRETE BLOCKS
Wall Finish	GLAZED TILE WAINSCOTS with painted CONCRETE BLOCKS (kitchen and serving units, wishwashing room, boys' toilets); ARCHITECTURAL TERRA COTTA FACING (lobby and three entrance vestibules); ARCHITECTURAL TERRA COTTA WAINSCOT and PLASTERED walls (five entrance vestibules); other walls of painted CONCRETE BLOCKS
Roof	BUILT-UP, with slag, over concrete insulation
Sheet Metal	COPPER FLASHING
Floor Finish	HARD WOOD (shop conference room, teachers' rest room, drafting rooms, office, first and second floor shops); ASPHALT TILE ON CEMENT (pupils' and teachers' cafeteria); CERAMIC TILE (toilets, dishwashing room, kitchen and serving units); NON-SLIP TILE (foundry shower room, foundry drying space); all others are CEMENT
Interior Partitions	4" hollow CONCRETE BLOCKS (corridors)
Ceiling	PLASTERED hung ceiling (toilets, lobby and entrance vestibules, corridors); PLASTERED ceiling furred or hung (teachers' rest room, kitchen and serving units, dishwashing room, offices); ACOUSTICAL TILE panels (pupils' and teachers' cafeteria); other ceilings have PAINTED SLABS and BEAMS
Windows	STEEL SASH (wire and clear glass used)
Ornamental Metal	STAINLESS STEEL, BRONZE
Other Equipment	Venetian blinds, cloth shades, kitchen equipment, elevators, sprinklers

In a **BUSINESS BLOCK** on Lexington Avenue, New York, the late Thomas W. Lamb created, with a limited budget, an acceptable addition to the metropolitan scene. Exception has been taken to the ponderous central motif, but the general scale of the building seems "right" amid tall buildings of that neighborhood

THIS FANCIED NECESSITY for a central motif is one of the most insidiously destructive persistences in modern design. It has spoiled the direct beauty of many industrial buildings, and it happens that in a new business block on Lexington Avenue its destructive effect can be clearly seen. This building, designed by the late Thomas W. Lamb, is in other respects one of the most carefully detailed and pleasantly proportioned of any of those recent two-story tax-payers that have become an increasing note in most of our cities. Its upper floor, used for bowling alleys, has long continuous windows, and the shops below re-emphasize this horizontal note. The end elevations on the side streets are pleasantly proportioned, and the detailing throughout is unusually polished. Especially effective are the moulding beneath the coping, the slightly projecting drip stone over the upper windows, the bold and effective use of metal lettering for signs. The length of the whole and the repose inherent in its stressed horizontal lines form a most happy and necessary esthetic element in our overstaccato city. With all of this excellence, it is definitely a shock to come in the center of the Lexington Avenue front upon a monumental central pavilion. Without even the excuse of a door to justify it, it rises in the most structurally inconclusive and esthetically meaningless way, over the middle of a show window, to an absurd parade of decorative cresting; then returns down the sides with heavy stonework supported over nothing.

This fear of quietness, of serenity, and of the horizontal is a symptom, I believe, of a much wider timidity on the part of most American designers. **It is a false fear of overstatement.** Having hit the note of horizontality, they fear to be definite in their statement; they compromise and qualify by these sudden inexplicable central pavilions! The greatest buildings in the past have made their esthetic statements with magnificent power.

DATA SHEETS

BY DON GRAF

Index No.

LIGHT-LOCKS

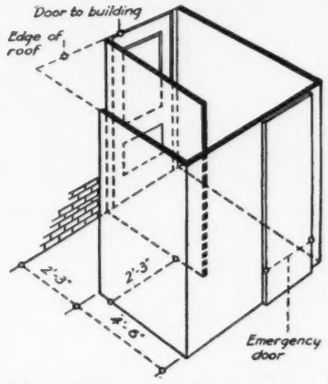
F 19 s

CONSTRUCTION

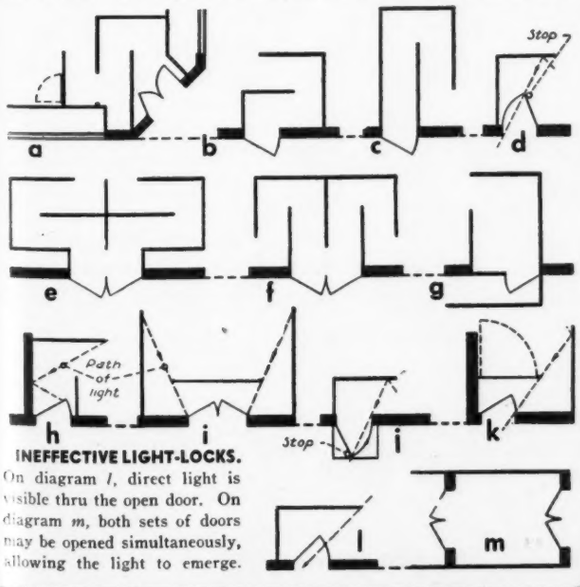
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SET 21 JUN 1942

LIGHT-LOCKS are exits and entrances which do not permit interior light to escape. They are passages, usually 2′-3″ wide, with dark non-reflecting walls and ceiling, so constructed that neither direct nor reflected light is visible at the exterior entrance. Emergency doors (*a*, *k*) are desirable. For pedestrians, a white line 2″ wide can be painted at 3′-6″ height along the walls. In and out traffic should be plainly marked. Any steps should have white nosings. Partitions may be removable, must be fireproof.



SMALL BUILDINGS AND SHOPS. Where no part of the light-lock can be permitted to encroach on the space outside, single types *b* and *c*, and double type may be used. Outer walls must extend beyond the central baffle by a length at least equal to the width of the passageway.



INEFFECTIVE LIGHT-LOCKS. On diagram *l*, direct light is visible thru the open door. On diagram *m*, both sets of doors may be opened simultaneously, allowing the light to emerge.

Index No.

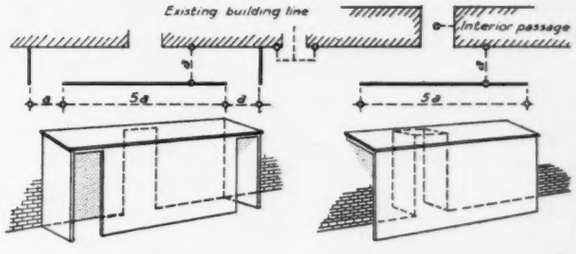
LIGHT-LOCKS

F 19 t

CONSTRUCTION

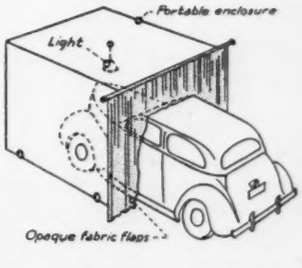
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

When arrangements for light locks cannot be readily made within a factory or similar building, external means may be adopted. These should be portable and roofed in but open on the side facing the factory door. These are wheeled into position at night and removed during the day. Dimension *a* to be not less than the width of the factory door and a minimum of 2′-3″. Interior to be painted dull black with arrows painted on wall opposite the exit to indicate direction of movement. Effectiveness of the arrangement is increased when a short darkened passage can be provided within the factory, leading to the exit. No direct light should emerge thru the exit door.

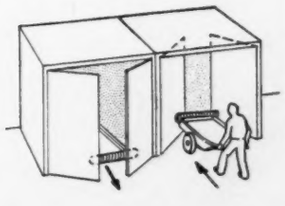


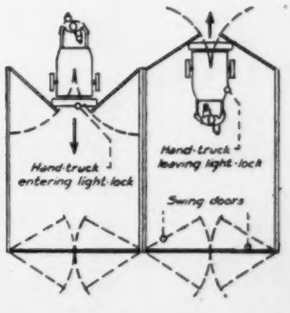
SET 21 JUN 1942

MOTOR REPAIRS or engine examination may be facilitated by use of a compact portable enclosure fitted with electric connections and opaque fabric flaps. Wind shield and windows of vehicle must be blacked out to prevent escape of light.



HAND TRUCKS or similar small trucks to pass thru light locks having an arrangement of 2 sets of light-tight double-swing doors. Trucks to have bumpers to push open the doors. Doors are to be designated to give proper direction to traffic thru enclosures. No lights allowed in enclosure. Factory doorway to be blacked out down to top of enclosure.





DATA SHEETS

BY DON GRAF

LOADING PLATFORM BLACKOUT

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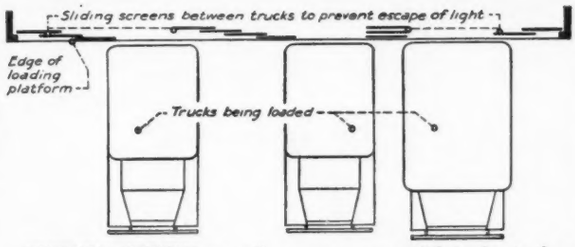
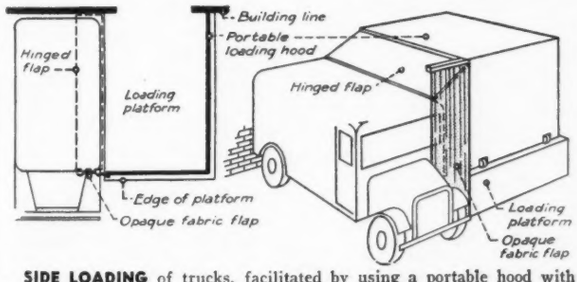
PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

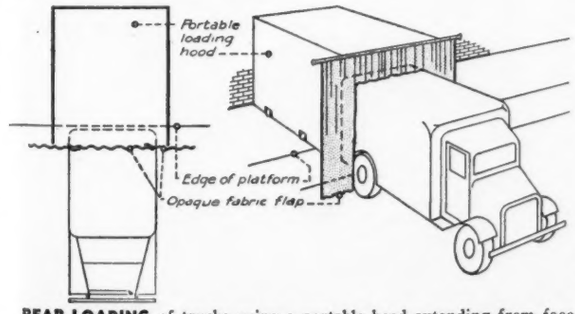


PORTABLE SCREENS on rollers move on parallel tracks to form overlapping light guards at the spaces left between trucks. Auxiliary curtaining used as required to prevent escape of light. Screens must be readjusted over the opening before the truck leaves the platform.

SET 21 JUN 1942



SIDE LOADING of trucks, facilitated by using a portable hood with interior light. Opaque curtains must be used to close off any space not covered by the hood itself. The truck windows and windshield must be obscured during the loading.



REAR LOADING of trucks using a portable hood extending from face of building and over truck. Opaque curtains fitting close to the sides of the truck are used to fill any space where light may filter out.

WINDOW PROTECTION AND BLACKOUT

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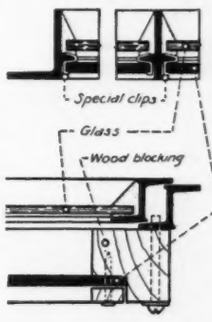
F 19 v
CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

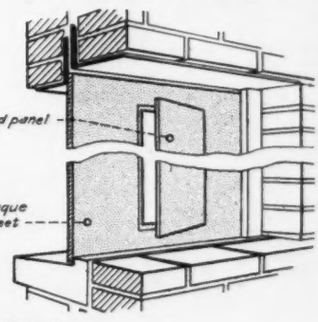
Window openings, whether completed or in process of construction, need both protection and blackout provisions. Also, a glazed window blacked out on the inside will reflect light from exterior sources because polished glass is mirror-like. Metal sash may have rigid sheet materials, expanded metal, etc., attached directly to their members by special clips, by supplementary wood frames, or by screws tapped into the sash metal. Construction openings may be boarded up, but small hinged panels are desirable. Double hung or casement sash may be protected by supplementary sets of sash, glazed with opaque non-shattering material; also, double projected windows of type shown are available.

SET 21 JUN 1942

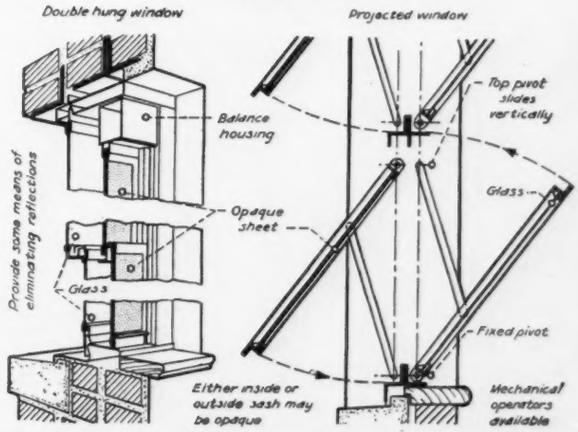
METAL SASH



CONSTRUCTION OPENINGS



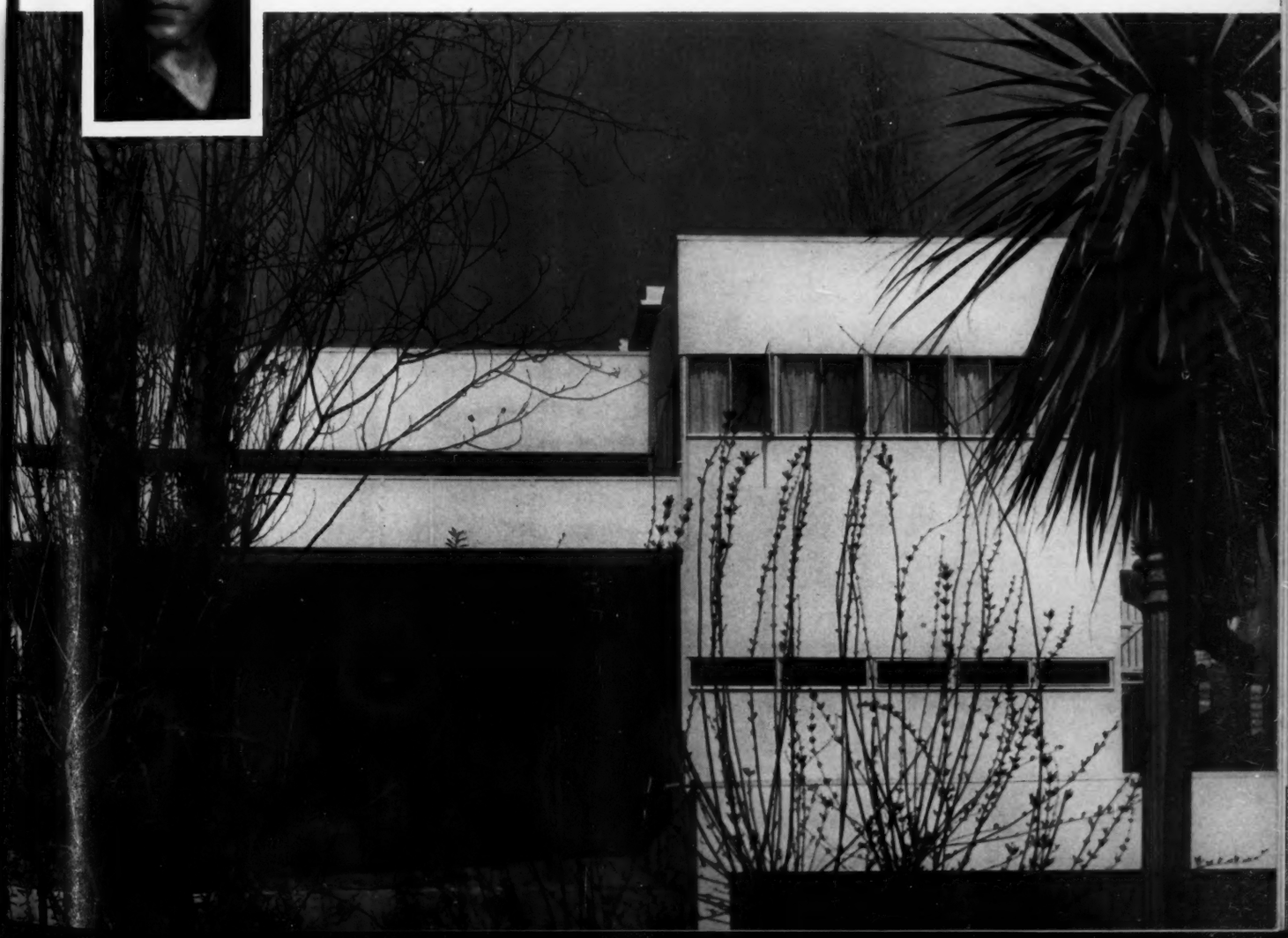
DOUBLE SASH

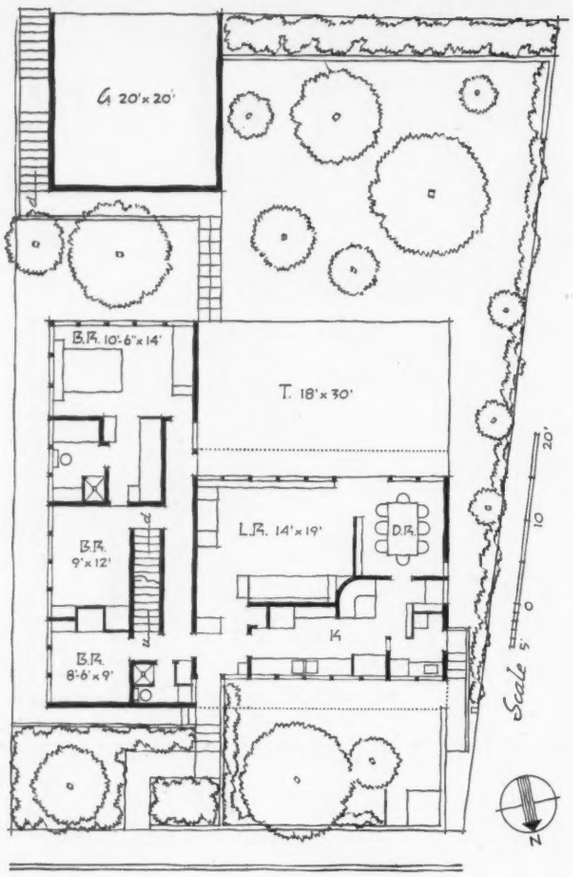


HOUSE ON A HILLSIDE

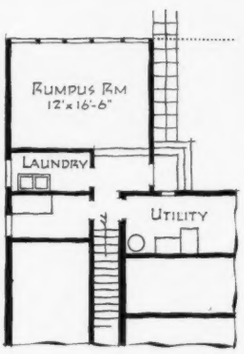
Raphael S. Soriano, Designer, Hollywood, California

From Rhodes, in the Aegean, Soriano came to America in 1924. He studied architecture at USC and was associated with Neutra just after graduation. His first house was exhibited in 1937 at Paris International Exposition and his later work—commercial as well as residential—has been widely published



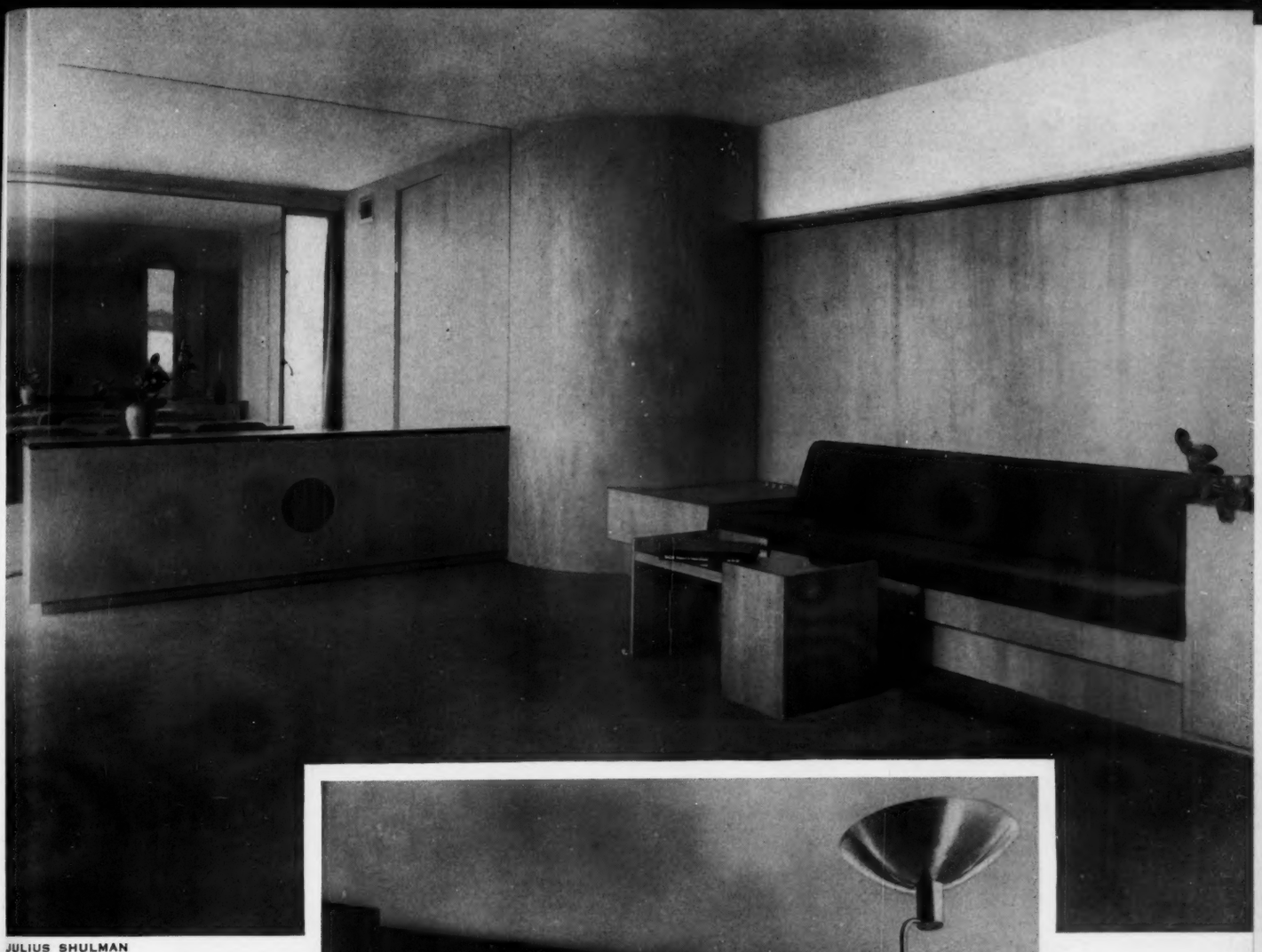


Severity of the street front of the house of Dr. and Mrs. Louis J. Gogol, Los Angeles, is relieved by the color scheme of light beige stucco and walls of Indian red brick (photo over-page). The plans here and the view of the garden front (over-page) show how the designer has utilized a sloping site. The spacious deck on the south side of the house is used for sun bathing, as an outdoor playroom for the Gogol's baby and—since it is



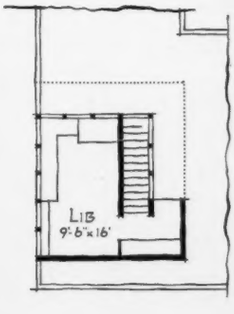
well integrated with the indoor living space—for outdoor dining and entertaining (photo below). The deck enclosure is ½" plywood bolted to iron uprights. LIVING ROOM walls and built-in furniture are finished with ¼" plywood of an exotic pattern. Indirect lighting is from a tubular incandescent light trough above the sponge rubber couch (across-page) flanked by built-in units

JULIUS SHULMAN



JULIUS SHULMAN

The buffet and radio speaker unit with peach colored screen of ¼" plate glass (above) is between the living and dining spaces. The entire end wall beyond is covered by a mirror. On the top floor is Dr. Gogol's LIBRARY (right) commanding a fine view to the South



MATERIALS AND EQUIPMENT

Footings	REINFORCED CONCRETE, 1:2½:3½
Terraces	2″ x 4″ PLANKS, ⅛″ apart, over heavy planks (deck off living-dining room); INDUSTRIAL ROOF SURFACING (roof decks)
Wall Insulation	1″ RIGID BOARD insulation on ceilings and walls
Wall Construction	4″ x 4″ REDWOOD POSTS, 3½′ o/c; stuccoed outside; plastered inside
Floor Construction	2″ x 12″ and 2″ x 8″ WOOD JOISTS, 16″ o/c, with ⅜″ PLYWOOD over subfloor
Roof	ASBESTOS, three layers
Waterproofing	2 coats of HOT PITCH
Sheet Metal	GALVANIZED IRON, 24 ga.
Windows	STEEL SASH, casement-type, DSA glass; COPPER SCREENS. Steel frame doors have PLATE GLASS
Finished Floors	CARPETING in all rooms except kitchen service and bathrooms where LINOLEUM is used
Interior Walls	PLYWOOD PANELS, 4′ x 8′ x ¼″, with finishes of rare woods: Magnolia and Ailon (Living Room); Bayotte (Master Bedroom); Duali (Child's Room); Walnut (Library and Stairs)
Plumbing	CAST IRON soil pipes; GALVANIZED IRON water pipes; VITREOUS CHINA fixtures (Master Bedroom); ENAMELED IRON fixtures elsewhere
Heating	FORCED AIR SYSTEM with filtering and humidifying systems controlled by thermostat
Electrical	CONDUITS. CHROME FIXTURES
Hardware	SATIN FINISH CHROME
Other Equipment	Electric refrigerator, gas range, washing machine, built-in furniture using sponge rubber

THE THRESHING FLOOR

"A Study in Contrasts" by Lorimer Rich in the August issue of PENCIL POINTS, *wherein he compared the National Gallery of Art with the design of the proposed Smithsonian Gallery of Art, has prompted* WALTER DABNEY BLAIR, *F.A.I.A., to write the following comment.*

Architectural design is more than a continuous window, more than assembled vertical piers. Into it enter the emotional properties of spatial relations, and of varied forms. Architecture exists both in space and in light, and is space occupied, devoted to man's use, both physical and spiritual.

Visually it is a spatial pattern in light, with horizontal and vertical elements, each having its distinctive emotional appeal; related forms and masses, each again pregnant with emotion. Architecture as light is a pattern of darks, lights, and grays—ornaments and mouldings make the grays, subdivide and enrich the spatial patterns.

In nature and geometry man has found inspiration for his ornament, and when his grays are restricted to simple fluting and reeding, which have no associated values, there is a loss of richness, a paucity of emotional content, a withdrawal from nature into a simple mechanical abstraction.

There is a wide field of beauty over and beyond rectangularity, beyond assembled rectangular masses. There is a beauty of masses and related forms as shown in the towers of Notre Dame, in Hagia Sophia, Versailles. It is well to recall such richness of creation when one sees the starkness and bareness of the design for the new Smithsonian. Utility may be here; beauty is not.

Though participation of government and industry in building operations is desirable, ALBERT KAHN, *F.A.I.A., points out that actual work of design and construction should be delegated to private architects.*

Unnecessary competition on the part of the government with private practice works a hardship on individual architects, who would be heartened by the opportunity to share in the work carried on by the government, and thus be enabled to keep their offices open and their employees at work.

Properly equipped architectural organizations with carefully pre-

***HENRY BELL**, of the office of Jack B. Smith, Birmingham, Ala. architect, drew these pencil sketches representative of the town and country life of Birmingham's negro population. From top to bottom: "Commercial Building, Sixteenth St., Birmingham"; "Residence, Jasper, Ala."; and "Residence, Rockford, Ala."*

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pared plans and specifications will produce better results and, through competitive bidding, lower costs. Any well-organized private office should, with the efficient cooperation of officials and staffs of government agencies, produce superior results practically, artistically, as well as economically.

ROBERT D. PROCTOR, *an architectural student at Princeton University, wrote some time ago to Professor F. A. Comstock, questioning whether engineering schools were not perhaps the best for a would-be architect. The following excerpt from the professor's letter gives his distinction between the engineer's and architect's approach.*

At present the architect is too "arty" and conceited about his own judgments, which depend almost wholly on a system of æsthetic values and hardly at all on reason and common sense.

The engineer is prejudiced by experience against the architect because of the latter's disorganized and sloppy approach and method. This causes the engineer to bend more closely over his slide rule. The result is a lack of realization of implications.

Our problem is to develop a method of attack in our thinking process whereby we are thinking imaginatively, and our reasoning is always founded on and checked closely by facts and common sense. These sentiments work both ways on engineer and architect. . . . The chances are that you can best attain this goal via an architectural rather than an engineering school; the latter is apt to stifle, the former must be guarded against, however, to insure the continuous presence of reason in your judgments.

* * *

IN THIS ISSUE

The architect of the office building for Lever Brothers Company illustrated in this issue is *Donald des Granges,* who has conducted his own practice in Boston since 1932. A native of Chicago, des Granges studied architecture at Columbia University and Massachusetts Institute of Technology, also studying in Europe before, during, and after his college years. He was connected with various offices in New York and Boston including that of *Ralph Adams Cram.* He also served as Consultant Architect to Stone & Webster Engineering Corporation.

Members of the firm of *Childs & Smith,* Architects, of Chicago, whose Employers Mutuals building also is shown in this issue, are *Frank A. Childs, William Jones Smith,* and *O. H. Breidert.*

Prior to forming the existing partnership in 1912, Childs, a graduate of Armour Institute of Technology, Architectural Department, had studied in Paris, returning in 1907 to work in the office of *L. B. Dutton,* architect of San Francisco, then in the office of *Holabird & Roche* for two years. He has specialized in educational buildings having been connected with more than fifty major structures in this field. He is a member of the A.I.A.

Smith, after graduating from the University of Pennsylvania and L'Ecole des Beaux Arts, spent two years in New York with *Cass Gilbert* and three and a half years in Chicago with *Holabird & Roche,* before joining in practice with Childs. He has been connected with the design and construction of banks, office buildings, insurance buildings, college and other institutional work. He is an F.A.I.A.

Breidert, who has managed the office during its industrial, educational, and other large-scale practice went to the office of Childs & Smith from the office of *George Maher* in 1915—becoming a partner in 1919 when he returned from Army service.

Konrad F. Wittmann, A.I.A. (see pages 13-14) is instructor in City Planning and Chief of the Industrial Camouflage Program at Pratt Institute, Brooklyn. Several years ago, he came to New York from Europe where he had an extensive architectural practice, concentrating on town planning, housing, residential architecture, and factories. He also was for many years editor of an architectural magazine. Wittmann studied architecture at the Technical University in Munich, and traveled in almost all European countries to study modern architecture first-hand. In his own practice he had early experience in Air Raid Precautions.

John F. Staub, Houston architect, whose residential work is the subject of a feature presentation this month, has practiced architecture

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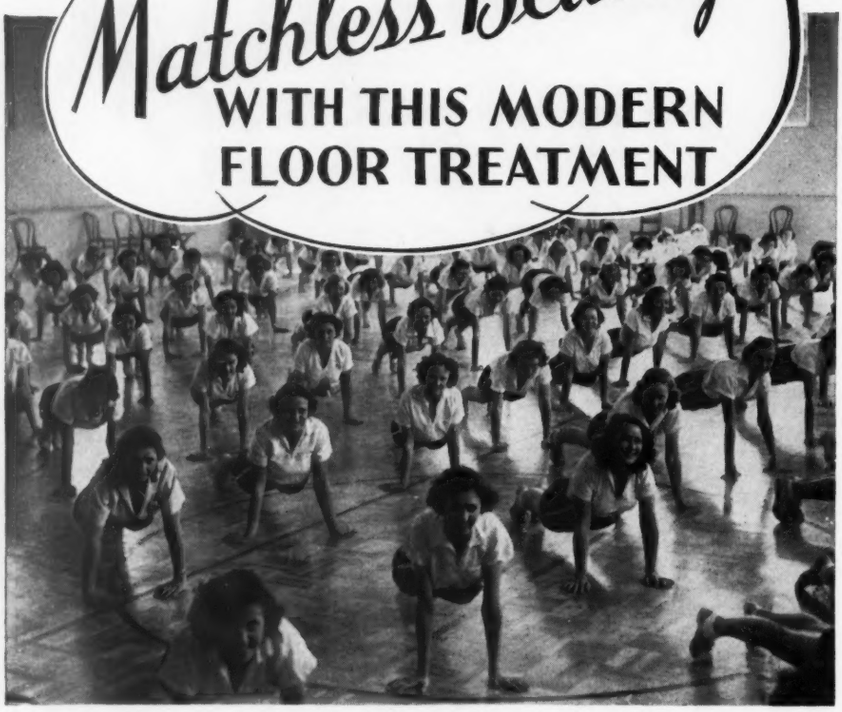

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in Houston, Texas, since 1923. He is a native of Knoxville, Tennessee, and first attended the State University in that city; later studying for two years at Massachusetts Institute of Technology, where he received the Degree of B.S. in Arch. and also a scholarship for graduate work which earned him his Master's Degree in Architecture in 1916. He spent 18 months in the Naval Air Service, winning the Naval Cross for distinguished service in the World War, then returned to New York to become an associate of *Harrie T. Lindeberg*, distinguished residential architect. It was in this capacity that he first went to Houston in 1921.

Staub's work is discussed critically by another Texan who is familiar with the examples illustrated. He is *James Chillman, Jr.*, Director of the Museum of Fine Arts in Houston, and Assistant Professor of Architecture at Rice Institute. Chillman is a graduate of the University of Pennsylvania, Department of Architecture, and won the Rome prize in 1919.

Grosvenor Atterbury, F.A.I.A., who designed the Yale Medical Library presented on pages 31-37, has received many honors during his professional career in New York as architect and community planner. A native of Detroit, Atterbury attended Yale University, where he received his B.A. in 1891, and Columbia School of Architecture and L'Ecole des Beaux Arts, Paris, before beginning his practice in 1895. He also studied painting for three years under *William M. Chase*.

He has been the architect for a notable series of industrial and low-cost dwelling projects; civic and institutional buildings; important residences in the metropolitan area and as far afield as Charleston and Tucson; also serving as Consulting Architect for several large-scale developments. In addition to his many professional honors, Atterbury is well known through his many monographs and addresses on topics of educational and professional interest.

The technical article this month (continued from the December issue) was written by *Ronald Allwork*, who specializes in preparing educational copy and technical data related to the building field. Following graduation from the School of Architecture, Columbia University, he gained his practical experience from the offices of New York architects—and a knowledge of heating and air conditioning while with American Radiator Co.

THE THRESHING FLOOR

Sore point in the profession is the matter of architectural credit on government as well as private construction. EDGAR WILLIAMS, *New York Architect, points out that proper architectural credit is just as important as the design of the building itself.*

On entering the lobby of the Central Heating Plant at Washington, D. C., one is confronted with a sumptuous tablet which bears the following inscription:

"This building was completed during the administration of Franklin D. Roosevelt, President of the United States of America; William H. Woodin, Secretary of the Treasury; Lawrence W. Robert, Jr., Assistant Secretary of the Treasury; James A. Wetmore, Acting Supervising Architect. 1933"

We architects know that the building was designed by *Paul Cret.* His creative genius lifted what might have been a sterile structure into a living piece of architecture.

This is important. The intangibles are always the most important attributes of human existence. Paul Cret's contribution to American architectural progress in his design of the Central Heating Plant is as important as was the building to the solution of the heating problem of Washington's official buildings; more important than the facts which the tablet relates.

We architects should propose the installation of another tablet stating that the building's design is the work of *Paul Philippe Cret.*

The discussion and interpretation of the work of George Grant Elmslie, by Talbot F. Hamlin in the September issue of PENCIL POINTS, *has prompted* EDWARD S. GRZYBOWSKI, *a draftsman, to write the following comment.*

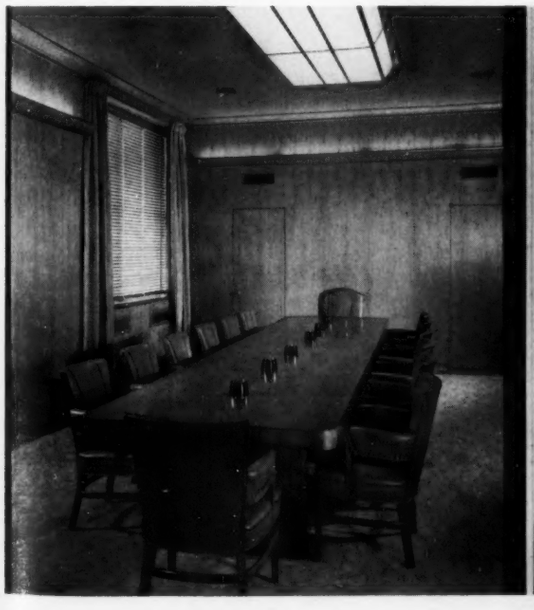
The commentary on "George Grant Elmslie and The Chicago Scene" not only informed the reader of the very lively period in which Elmslie and the courageous group of architects with whom he became associated played a very important role, but the author spoke of the particularities which undoubtedly caused the creation of the resplendent structures that these men had conceived.

Evidently the quality of Elmslie's work arose through profoundness of imagination, as seemingly there is that immaculate conception or organic correlation of the spaces enclosed that at once challenges the meaningless and nerve-racking forms done by the ever-raping and hackneyed individuals who always try to imitate good and sincere architectural work.

The commentary reminds one of the true character and purpose of an architect.

A false sense of superiority is detrimental to the architectural profession, points out JAMES C. WHEELER, JR., *who is associated with F. W. Stevenson, Architect, in San Diego. Mr. Wheeler's conclusions were written after readng Hal Burnett's article in the September issue of* PENCIL POINTS.

I don't know who Hal Burnett is, but I believe we in the architectural profession should be moved enough by his article to see that a new chair in the President's Cabinet be installed, and Mr. Burnett be put there to look out for us poor, shy, cringing, *but deserving,* humans who have failed to recognize the need of a strong leader to guide us back to and through that era of rebuilding which is bound to come. Most of us are so ego-



It has been called to our attention that the executive offices of the Employers Mutual Insurance Companies, Wausau, Wisconsin, presented on page 12 of the January issue, were incorrectly described as finished with matched plywood. We now learn that the walls in the Directors' Room (above, left) and in the office of the Vice President (above, right) were finished in Figured Teak Flexwood, a flexible cloth-backed veneer. Ten offices, the Board Room, the Lobby, and the Recreation Room also were finished with Flexwood, in accordance with the design of the Architects, Childs & Smith, of Chicago. Other woods used included Figured Paldao, Rift Oak, Red Birch, and Figured Flat-Cut Walnut

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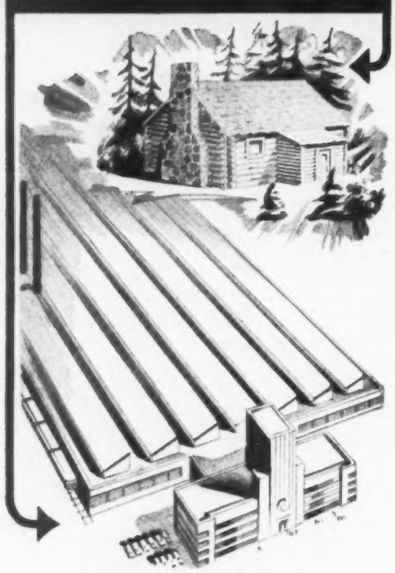

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tistical that we won't admit there is someone else superior to us in this task, much less someone our equal.

Please, more articles like the September one. Tear the guts out of the whippersnappers who call themselves architects just because their mammas said they could "draw the nicest pictures." Make them tear down the faded and dust laden perspectives in their office, and throw out those moth eaten rolls of drawings, blueprints, and pitiful specifications. Make them start from scratch or fall by the wayside.

* * *

IN THIS ISSUE

Arthur B. Holmes, B. Arch.—Cornell, 1911, was for many years in private architectural practice in Montclair, New Jersey. He became interested in town planning, studied it and served as a member of the Montclair Town Planning Board, and subsequently as its professional planner. In September, 1941, he went with the Public Work Reserve in Washington as Assistant Consultant on capital improvement and Planning Engineer. He was formerly president of the New Jersey Chapter, A.I.A., and has been active in recent years in national committee activities.

Joseph Hirsh received undergraduate and graduate training in natural and physical sciences, public health, and social sciences. He was formerly Medical and Science Editor of Oxford University Press, and has done research and writing for foundations and for several agencies of the Federal government. At present he is Information Writer and Program Analyst for the Public Work Reserve. He has published articles and studies in the following fields: public health and social insurance problems; education, sociology, and more recently on social planning.

Eugene Weston, Jr. and *Walter L. Reichardt,* associated in the design of the Long Beach Housing Project, page 64, are both in practice in Los Angeles. Weston, one of the pioneers in the housing field, assisted in the preparation of the U. S. Housing Act of 1937 and urged housing legislation for California and Los Angeles City and County. He has been associated with other architects on three important housing projects there: Harbor Hills, Romona Gardens and Aliso Village. This National Director of the A.I.A. and Past President of Southern California Chapter received his architectural training in offices of Los Angeles and New York and had charge, under Bertram Goodhue, of drawings and field work of the National Academy of Sciences. His practice in Los Angeles over the past 20 years has included schools, residential, and commercial work.

Reichardt, a graduate of the University of Pennsylvania, 1930, traveled for three years in Europe as Rome Prize winner, making a special study of housing. After working in several Los Angeles offices he started his own practice in 1939. This has included residential, institutional, and commercial work.

Paul R. Hunter, who furnished the description of the Long Beach Project, has had a professional career closely paralleling that of Reichardt, as he also graduated from the University of Pennsylvania (1931) and went into practice with Reichardt after several years in important Los Angeles offices. They are co-authors of "Residential Architecture in Southern California" and Hunter has been a contributor to the professional magazines.

Architects for Bonwit Teller—White Plains were *Ely Jacques Kahn* and *Robert Allan Jacobs,* of New York, with *Harry Leonard Miller,* of White Plains, as Associate Architect. The Landscape Architect was *Henry J. Marquardt,* of South Norwalk, Connecticut. Kahn, who is internationally known for his stimulating architecture and creative design, is a Fellow of the A.I.A., President of the Municipal Art Society, former chairman of the Board of Beaux Arts Institute of Design, and former vice president of the Architectural League. Following his graduation from Columbia University with A.B. and B. Arch. degrees, Kahn went abroad for Beaux Arts training and received the Diplomé in Paris. He served as Professor of Architecture at Cornell and has had a distinguished architectural practice in New York.

Joining the staff of Ely Jacques Kahn several years ago Jacobs became a member of the firm in 1940. He had formerly worked

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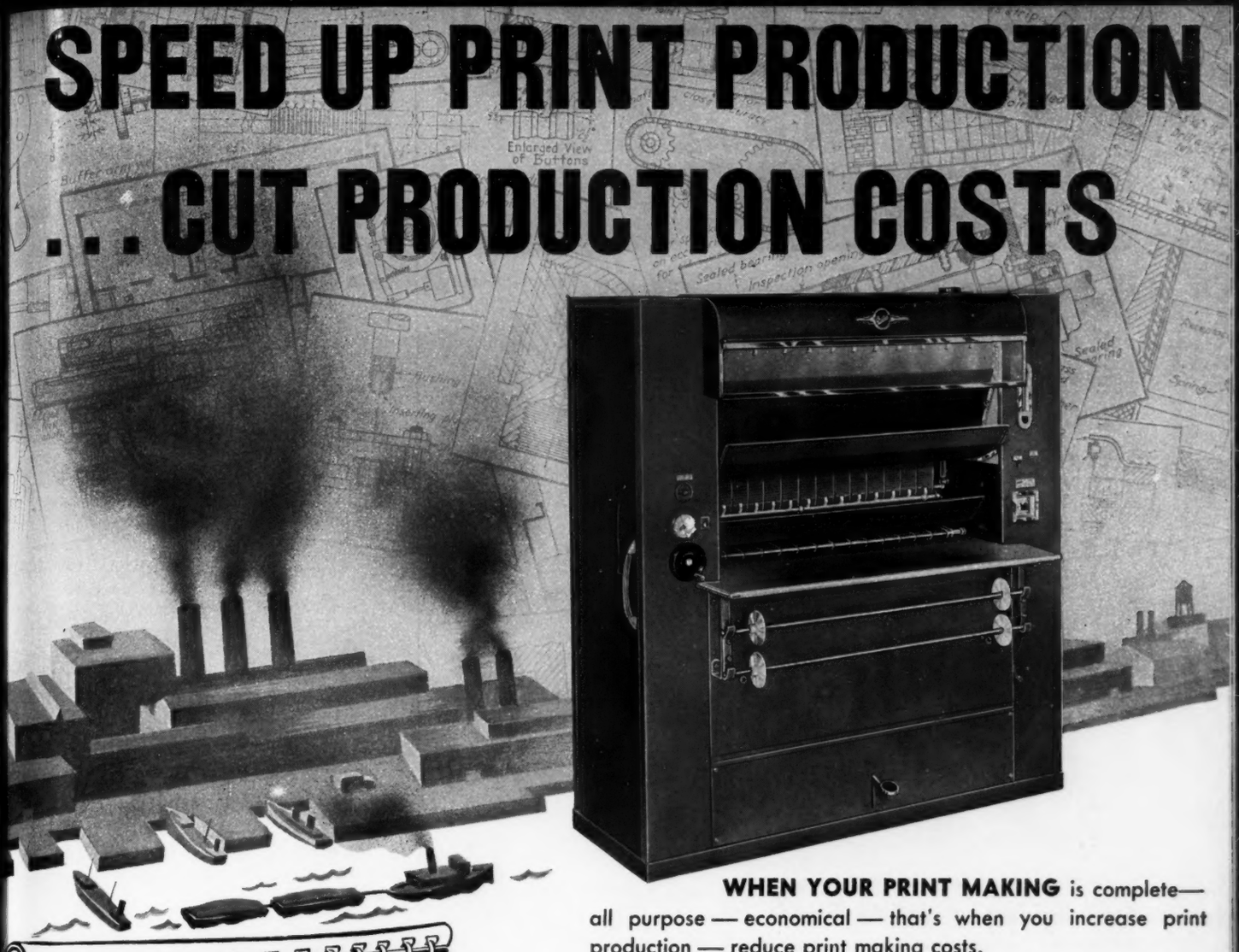

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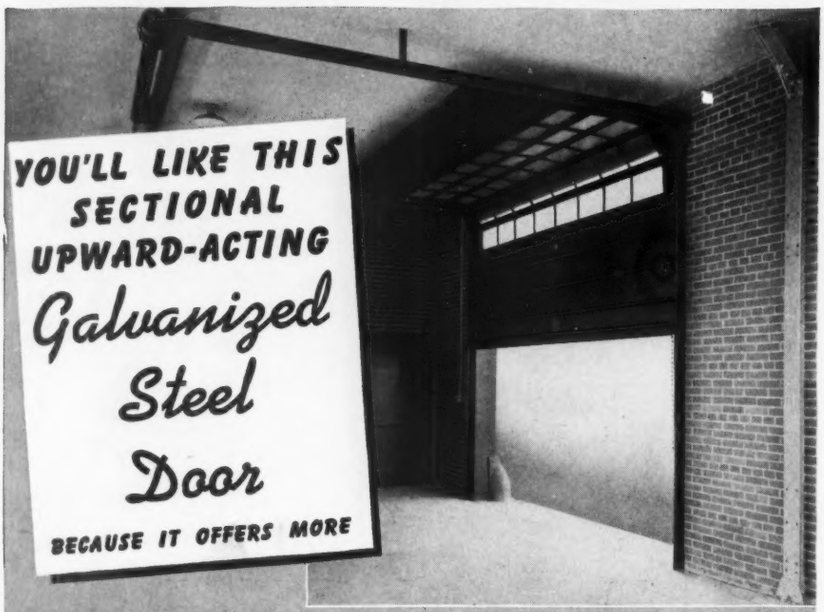

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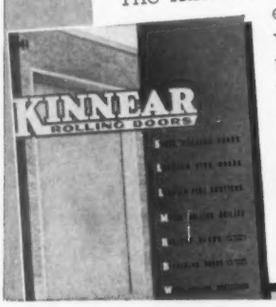

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with Harrison & Fouilhoux (1935-1938) and for two years prior to that had worked as designer in Paris offices of Le Corbusier, with whom he had first been associated when serving as interpreter for the famous French Architect during a three-month lecture tour of the United States. A graduate of Amherst College and the Architectural School of Columbia University, Jacobs was winner of the Hamlin Prize in 1934. He is an active member of professional organizations including the A.I.A., Architectural League, Beaux Arts Institute of Design, and Fine Arts Federation.

Residential and suburban commercial work have constituted Miller's practice for the past 12 years. His professional preparation began with a study of architecture at Ohio State University followed by employment for a year under Professor Joseph N. Bradford, University Architect. He then worked for construction and engineering concerns; later spending 8 years with Vivian Green, of New York, in development of residential communities in Westchester County (residences of the $30,000 to $250,000 class). Just prior to opening his own office at White Plains, Miller traveled for a year in Europe.

The professional practice of Marquardt began in 1926 and has included estates, public works, parks, school grounds, residential communities, site plans, and also services as consultant to architects on large-scale planning. He is a native of New York and received his training as a landscape architect at Syracuse University, Class of 1920.

The two Mobile, Alabama, Housing Projects presented in this issue (one for white families and one for negro families) were designed by *Harry Inge Johnstone*, Chief Architect for Slum Clearance Projects under the Mobile Housing Board. Past President of the Alabama Association of Architects, and member of the Executive Board, Alabama Chapter, A.I.A., Johnstone has practiced in Alabama since 1933 and also has been registered in Mississippi since 1936. A native of Mobile, he attended schools of that city and later Cornell University where he received the degree of Bachelor of Architecture in 1927. This was followed by special courses at Cornell

(*Continued on page 58*)

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THE THRESHING FLOOR

For many years THOMAS H. MCKAIG, *consulting architectural engineer of Buffalo, N. Y., has been sending interesting monthly letters to architects in that part of the State. One of these letters, sent to the Editors by* JAMES F. SCHINDLER, *Architect, of East Syracuse, N. Y., contained the creed of* THOMAS VAN ALSTYNE, *Cornell '03, architectural engineer, written a number of years ago but in the spirit we need at this time.*

"To respect my country, my profession, and myself. To be honest and fair with my fellow-men, as I expect them to be honest and square with me. To be a loyal citizen of the United States of America. To speak of it with praise and act always as a trustworthy custodian of its good name. To be a man whose name carries weight with it wherever it goes.

"To base my expectations of reward on a solid foundation of service rendered; to be willing to pay the price of success in honest effort. To look upon my work as an opportunity to be seized with joy and make the most of, and not as a painful drudgery to be reluctantly endured.

"To remember that success lies within myself, in my own brain, my own ambition, my own courage and determination. To expect difficulties and force my way through them; to turn hard experiences into capital for future struggles.

"To believe in my proposition, heart and soul; to carry an air of optimism in the presence of those I meet; to dispel ill temper with cheerfulness, kill doubts with a strong conviction, and reduce active friction with an agreeable personality.

"To make a study of my business, to know my profession in every detail, to mix brains with my own efforts, and use system and method in my work. To find time to do every needful thing by never letting time find me doing nothing. To hoard days as a miser hoards dollars; to make every hour bring me dividends, increased knowledge, or healthful recreation.

"To keep my future unmortgaged with debts; to save as well as earn. To cut out expensive amusements until I can afford them. To steer clear of dissipation and guard my health of body and peace of mind as a most precious stock in trade.

"Finally, to take a good grip on the joys of life, to play the game like a man; to fight against nothing so hard as my own weaknesses, and endeavor to grow in strength a gentleman, a Christian.

"So I may be courteous to men, faithful to friends, true to my God, a fragrance in the path I trod."

IN THIS ISSUE

Ernest A. Grunsfeld, Jr., who designed the rooms for Chicago Bar Association published in this issue, began his architectural practice in New York in 1923, moving to Chicago a year later to become associated with Eugene Henry Klaber, with whom he practiced until 1928. He has continued his independent practice since that time, and his work has included a number of important buildings, housing projects, and residences. Grunsfeld is a native of Albuquerque, New Mexico. He took his first architectural training at M.I.T. where he received his S.B. degree in 1918 and a certificate in naval architecture the following year. He later studied at L'École des Beaux Arts and the American Academy in Rome.

His professional honors include a Gold Medal from Chicago Chapter, A.I.A., for his Adler Planetarium, first prize in the WGN radio theater competition, and awards in other national competitions; and the Gold Medal of the *Société des Architects.* He has served as consultant for the PWA housing division, as a member of the A.I.A. Committee on City and Regional Planning, and as a member on the Illinois Housing Commission. He has also been a contributor to professional magazines.

Wallace F. Yerkes, who is Associated with Grunsfeld, graduated from Armour Tech. in 1922 and maintained a private practice for a number of years until he entered Grunsfeld's office in 1932. *William E. Koenig,* also an Associate of Grunsfeld's office, has been connected with the office since 1935 and also contributed to the design of the Bar Association rooms.

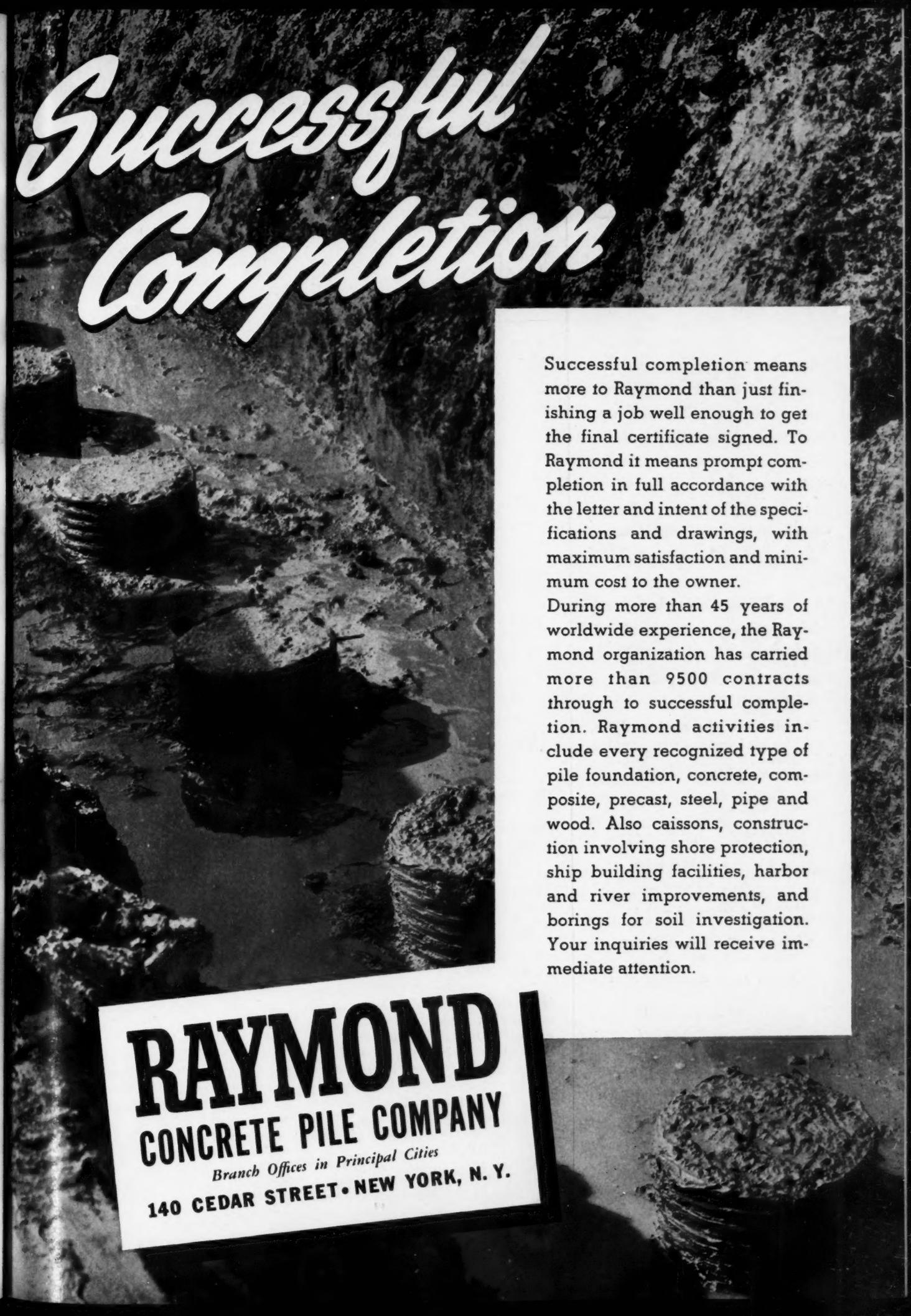
James F. Eppenstein, whose offices for Ziff-Davis Publishing Company also are shown this month, did not begin the study of architecture until he was 30 years old, and he was 35 when he opened his office in Chicago. Graduating from Cornell University in 1919, he spent 9 years in the factory of Elgin-American Manufacturing Company. Although he had charge of the factory for 4 years of this time, his childhood ambition to be an architect was unsatisfied and he gave up his job, moved his family to Ann Arbor, Michigan, and entered the School of Architecture as a freshman. A year later he transferred to Harvard where he received his M.A. and supplemented his training with two years of travel and study abroad, including a year at L'École des Beaux Arts and, for a time, at the State School of Architecture in Berlin.

In 1933 he returned to this country and went to Chicago, where he has lived since although his work has been in localities as distant as Chile. Eppenstein's practice has been based on "a complete architectural job" including all points of construction, furniture and interior design, and landscaping in his work with hotels and residences. He has also designed menus, linens, etc., and the scope of his practice has extended to a streamlined train.

Robert Law Weed, A.I.A., of Miami, has practiced architecture in Florida for 20 years. He is a native of Sewickley, Pennsylvania, and received his architectural training at Carnegie Tech. He served with the A.E.F. in France and returned to this country in 1919 to Florida in search of health. There his study and work have given him a practical approach to the problems involved in planning and building for tropical conditions.

He is president of the Florida Association of Architects, a past secretary of the Florida South Chapter, A.I.A., and has been working actively for unification for the architectural profession as well as education of the public regarding the true function of the architect.

Paul László of Beverly Hills is an industrial designer as well as an architectural and interior designer. He came to the United States six years ago and opened his California office, where he has designed a number of distinctive homes that he has built and furnished in the Southwest. His training began in



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Hungary where his family had been known in the design field for generations. He continued his studies in Vienna and Germany; then opened his first office in Paris, later practicing for 19 years in Vienna.

Frederic A. Pawley, Architect and Design Consultant, of Bronxville, New York, is the author of the technical article in this issue, "Sight-Lines in Theaters." Recipient of S.B. and M.Arch. degrees from M.I.T., where he won the A.I.A. School Medal for top scholarship average over four years, Pawley studied architecture in this country as a Rotch Traveling Scholar and also has travelled abroad. His architectural work, in leading New York offices, has included auditoriums and theater design, museums, stores, offices, hospitals, residences, museum research, and exhibitions. He is a registered architect in New York and Virginia and has published more than 40 articles on technical subjects. For the past two years he has been working on the design of prefabricated houses.

ARCHITECTS vs. ENGINEERS

A Special Book Review By Serge Chermayeff

Almost exactly one year ago, when Civilian Defense planning was getting into its stride, in spite of the fact revealed by subsequent evidence that a great number did not really believe it would become a vital issue in an actual war, I received a letter in the West from an engineer in the East. In it the author made a dogmatic and slightly irritating statement as follows:

". . . It is my belief that civil defense is a purely structural and engineering problem. For this reason the Committee on Civilian Protection in the War Time (about which he was writing) *was organized and is led by civil engineers . . ."*

The belief that the problem is one purely for engineers persists. The persistence might lead an outside observer to conclude that it is based not so much on doing the best for an important job as to corner it for a group. At least architects have not produced so dangerously foolish a generality on behalf of their profession. By the same token they had at that time failed as a professional group to produce tangible action of a comparable kind in connection with U. S. defense.

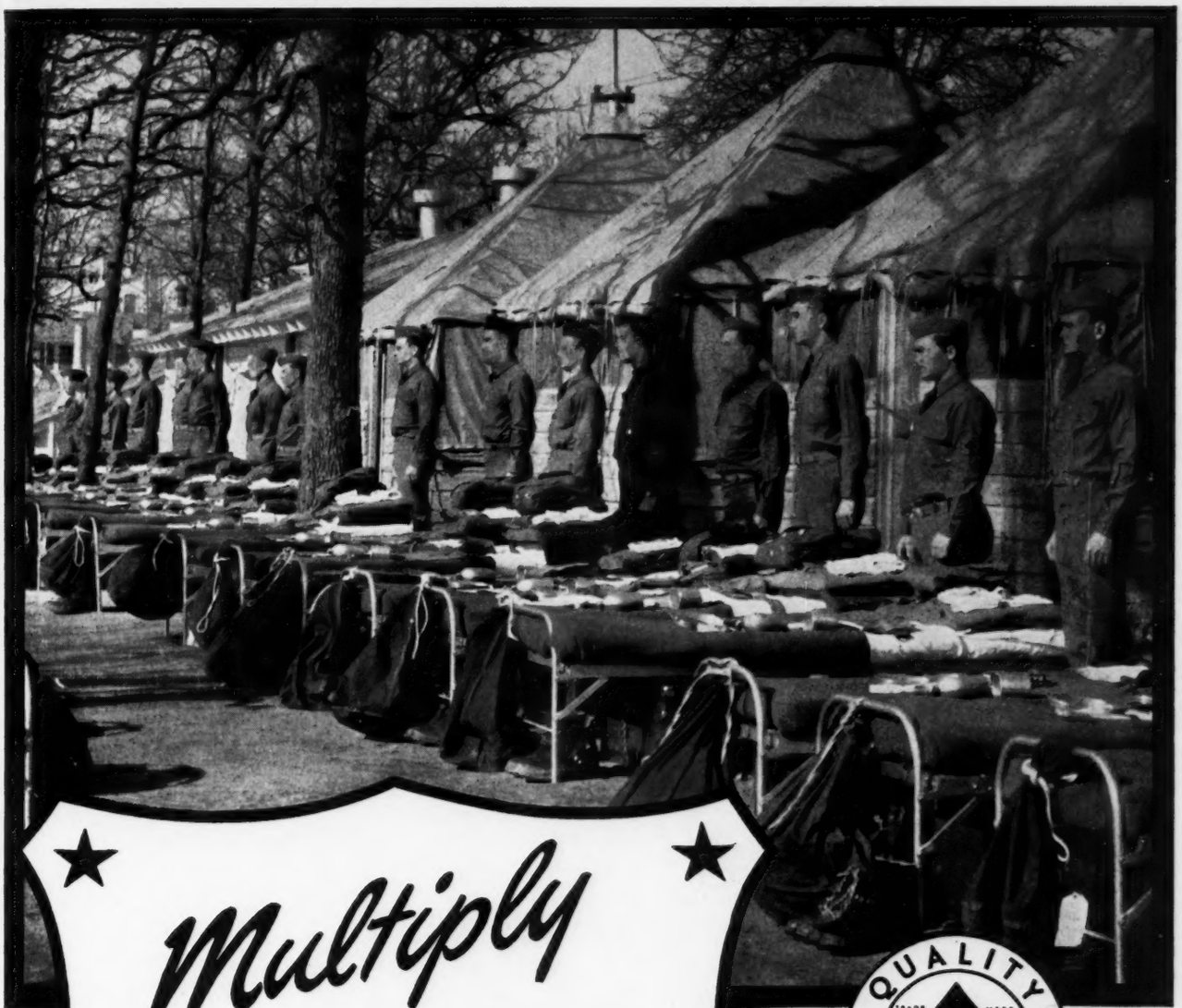
It is surely being made increasingly clear by the development of events that successful Civilian Protection can only be achieved through a united effort of a diversity of groups, each making its special contribution to the common end. How clearly this is shown in the article "Soviet Air Raid Warden" in *New Masses* of February 10, 1942.

Upon receiving the statement quoted above, I made a mild protest on behalf of at least the profession of which I am a member and replied that, while agreeing that civil defense was largely a technical problem, I felt: *". . . that the whole pattern requires synthesising minds to bear upon it, in order to give point and value to each contributive element including that of the specialist engineer.* My own fear being that 'defense' will become a natural field for architects and engineers to rush into, *faute de mieux,* and will produce 'patent medicine' for possibly inexisting diseases. . ."

An enormous amount of intelligent, serious work has been done by representatives of both architectural and engineering professions and many others besides. This work continues and is gaining weight and momentum. It is time to call a truce on these departmental bickerings and to get on with the job.

However, in part, this legend of the engineer's omniscience in the field of Civil Defense is being perpetuated. Witness the Publisher's announcement accompanying the last book on the subject, *Aerial Bombardment Protection,* by H. W. Wessmann and W. A. Rose. This says, among other things, that the book ". . . . gives you the engineer's answer to this important question" (Aerial Bombardment Protection). Here is the layman, in this case the publisher, perpetuating the legend of the engineer's omniscience for his commercial purposes by implying that the enviable reputation of engineers will sell the book—that engineers' words carry an especial weight in our society on any subject.

The professional authors make no such claims, although they are engineers. They preface a very



Multiply by 127,272

To make the eleven army cots you see here requires 128 feet of steel tubing, 195 feet of angle steel, 1073 feet of spring wire and 1933 feet of galvanized wire - not to mention rivets and other small pieces of steel.

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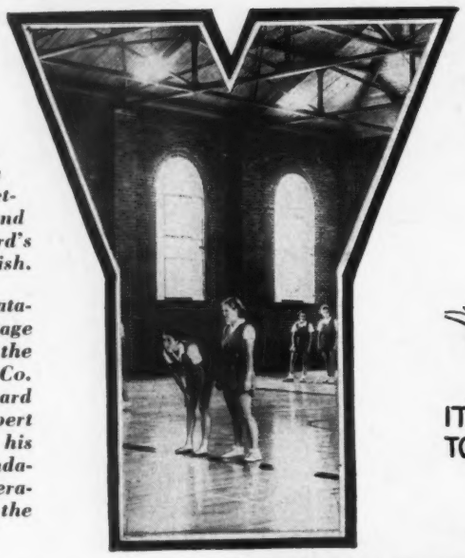

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considerable amount of valuable structural data, which is the major and valuable body of the book, by stating that its contents should be of use to "engineers and architects, to building and other technical departments and municipalities, to builders, to real estate management and insurance companies, to manufacturers of construction materials, to technical advisers of industrial corporations, to defense workers, and to many others whose activities relate to design, construction, maintenance, and operation of all types of construction prospects. . . ."

The book, with the exception of a few comments on gas exclusion and decontamination units, and a very cursory comment on camouflage, deals with protection against high explosives within existing buildings and buildings to be erected. For this last purpose it is to be recommended. One can only wish for as thorough a series of surveys of the many other facets of passive defense, which some believe to be of greater immediate importance.

Appearing almost simultaneously with this specialized book, the CIVILIAN DEFENSE ISSUE of the *Architectural Forum* (January) reveals the whole pattern in a masterly issue which the editors describe as a reference number.

This is no specialized treatise for technicians, but I heartily commend it to all those groups and individuals listed by Messrs. Wessmann and Rose in their preface quoted above. For here they will find the problem stated in its broadest terms, making perfectly clear what are the dangers against which to take protective measures.

The *Forum* states the problem under the headings:

"Can U. S. Coastal Cities be Bombed?"

"Would the Enemy's Gain Be Worth the Risk?"

"What Passive Defense Should the U. S. Provide?"

and proceeds to give an up-to-date resume of the different means at our disposal.

In conclusion—a plea to authors and authorities on the question of terminology: can agreement be reached on some simple description of the subject? Here we have Civilian Defense, and Civil Defense, and the very cumbersome Aerial Bombardment Protection and its more direct cousin Air Raid Protection or ARP. I have, personally, a sneaking affection for ARP in this word-tortured world.

"ITS LOVELINESS INCREASES . . ."

St. Peter's Hospital, Bristol, England, withstood the ravages of time from the 12th *Century until destroyed by the German Luftwaffe. But great architecture never dies. It lives on in men's minds, in men's records as in this distinguished Eldorado drawing.*

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HERE, THERE, THIS & THAT

WAR
(Formerly Potomac Patter)

Everything and everybody architectural is now on an all-out defense program, directly or indirectly. This column drafts itself to the forces working toward the supreme effort and henceforth gives out only information for home consumption and of no possible benefit to the enemy, such as:

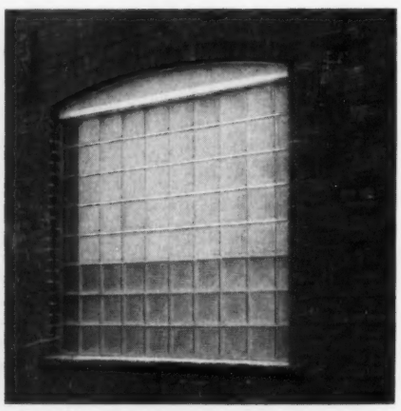
Office space for vital government agencies is at such a premium that some of these agencies have been found to bid against each other for rentable space. Is somebody overlooking the fact that taxpayers are shelling out (and how) the dough? Doesn't P.B.A.'s Space Control Unit act for the entire government?

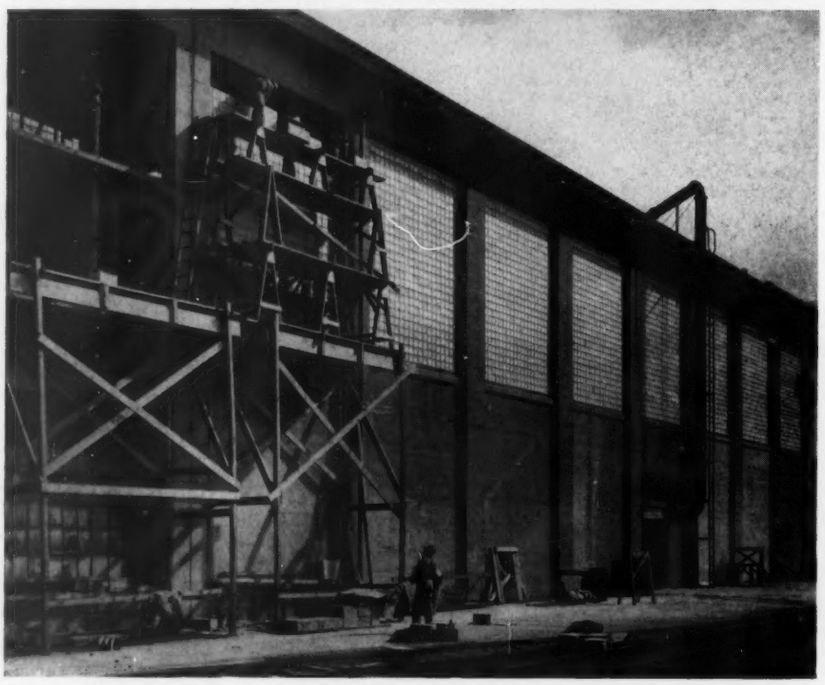
Could that be the reason that the War Department acquired a new privately-owned 10-story office building (*A. R. Clas,* Architect) from under the nose of the Maritime Commission for whom the "Space Control" section of P.B.A. was renting the space? Maritime had arranged for this building many months ago, had even made its own office layouts (*Alain de Bouthillier's* Styling and Furnishing Branch did a swell job—with *Paul Windom's* help) and the boxes were already packed for the morrow's moving. But the next morning—the War Department yelled "Bingo" and both Maritime *and* Public Buildings, which at the last minute tried to capture the space for itself, yelled "Aw Shoot!"

Recent Presidential action with regard to personnel transfers among more or less vital and defense government agencies will help many architects and engineers now frozen to unsatisfactory jobs, from the standpoint of either salary or the doing. His unfreezing order would now permit some excellent men to transfer from lesser jobs in lesser defense agencies to better jobs in the more important units where, naturally, needed help is offered better jobs and more remuneration. But all this won't help the War Department's losses—in spite of its highest priority rating on manpower. Some of the boys left War (freezing by prejudice notwithstanding). As *Irv. Cahn,* a recent resigner, pointed out: Capable men (like himself) rebel against puny jobs and more puny pay when the times demand the best effort by the best minds and hands. So now Irv. does his bit in defense housing for *Kenneth Franzheim,* who has plenty of it. Another with plenty of the same thing, we hear, is *William N. Denton, Jr.* whose spacious and well-appointed offices should echo with joyous pencil-pushing for many a day.

Naturally enough your Uncle Sam has practically closed the season for visitors. Many points of interest are now being carefully guarded by some of last year's draftees but that doesn't stop some of our architectural brethren from dropping down to visit. Business

(Continued on page 46)





With the Victory effort drawing off all new metal and depleting existing stocks, the maintenance and replacement of factory sash is becoming a knotty problem. A solution has been suggested by recent experiments conducted by the Insulux Division of Owens-Illinois Glass Co., Toledo, Ohio. Actual factory openings were studied in the tests. The old sash was first removed, the masonry opening trimmed up, and the sill painted with an asphalt emulsion. Wood chases were erected at the jambs and head, and expansion strips were put in place. Glass blocks were laid up in mortar, and the panel edges were packed tight with oakum and then caulked.

The use of wood chases and filler strips to compensate for differences between block units and the size of existing openings provided a practical solution. These wood members can be easily replaced or covered with Kalomein or metal plates after the emergency. In some instances, chases can be cut in existing masonry, eliminating the need for wood chases. Ventilation can be provided by means of wood sash in frames inset in the glass block panel. (Typical installation at left)

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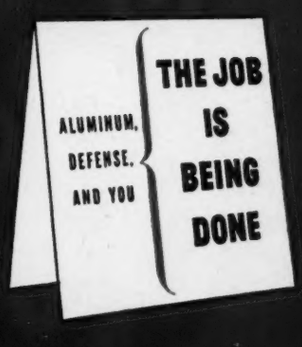

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THAT'S WHERE YOU COME IN. You are the man *who*. You are the man America is counting on to make the jobs Americans are going to need. You are the man who is going to do the *Imagineering*, in your specialty, that is going to win the place for yourself, your employees, your associates.

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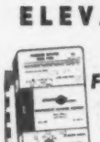

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen, and Specification Writers

The publications mentioned here are 8½ x 11 unless otherwise noted, and will be sent free upon request to PENCIL POINTS *readers by the firms issuing them. When writing, please mention* PENCIL POINTS.

ROOFING-SIDING—The Porcelok Co., Division of Davidson Enamel Co., Clyde, Ohio, has a 6-page folder on porcelain-enameled corrugated roofing and siding for all types of buildings and industrial plants. Typical Porcelok flashing details are included, together with engineering and specification data.

STEEL DECKS—A new 24-page catalog (A.I.A. File No. 12-B-3) on Holorib steel decks has been issued by Detroit Steel Products Co., 2250 E. Grand Blvd., Detroit, Mich. Feature of the catalog is the detail section. The plates are in two colors, with one color showing the Holorib installation. Included are construction details, specifications, other data on steel decks, reinforcing floor forms, Sanacoustic roofs, insulated roofs.

UNDERGROUND STEAM SYSTEMS—Valuable reference manual for those concerned with the layout and purchase of underground and overhead steam line construction is a new Bulletin No. 420A from The Ric-wiL Co., Cleveland, Ohio. The wire-bound manual covers general requirements for average needs on underground heating or power piping systems, with typical layouts, sketches, diagrams, and plot plans of actual installations. It includes many charts, tables, and details on piping methods, sizes, combinations, capacities, and details of various fittings used in such systems. The manual is limited to persons connected in an engineering and planning capacity with military, naval, aeronautical, other war construction projects, or with industrial plants built for or converted to war facilities.

AIR FILTERS—Engineering data, specifications, installation details, and maintenance methods and equipment on its four types of permanent, washable, viscous air filter units, are presented in an 8-page Bulletin No. 201-D by American Air Filter Co. Inc., Louisville, Ky.

FIBERGLAS INSULATION — Owens-Corning Fiberglas Corp., Toledo, Ohio, has issued a 24-page manual (Fiberglas Standards H2.6.1) on Fiberglas insulation for prefabricated buildings. Included are tables on thermal properties of typical prefabricated walls, ceilings, and floors; a discussion on measuring comfort by means of inside surface temperatures; and a non-technical explanation of the methods of preventing condensation.

FOLDING DOORS — Information manual on the Modernfold door, an improved type of folding wall with accordion-like action in opening and closing, from New Castle Products, New Castle, Ind. The manual shows typical installations in residences, hotels, clubs, churches, stores, contains erection details.

CONTROLLED HEAT EQUIPMENT — Hoffman Specialty Co. Inc., Waterbury, Conn., has published a 20-page installation manual (H.W.C. 441) on its hot water controlled heat equipment. It illustrates piping layouts and pipe sizing, typical installations, piping applications, suggested wiring diagrams, cycle of operation.

BLOWERS — Sixty-four pages of engineering data on its various types of blowers are contained in Catalog No. 241 (A.I.A. File No. 30-D-1) from Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago, Ill.

Also published: Catalog No. 141, 36 pages, on "Vitalized Ventilation" and air conditioning equipment.

HIGHWAY STRUCTURES — A 40-page 11x8½ booklet, from West Coast Lumbermen's Association, 364 Stuart Bldg., Seattle, Wash., contains construction details and plans on highway structures made of Douglas Fir. Included are posts and guardrails, wood culverts, concrete decks on wood stringers, truss and joint details on various types of bridges.

(Continued on page 40)

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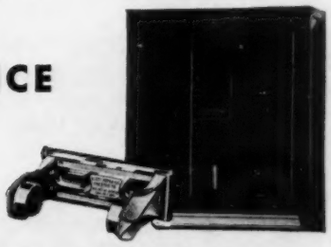

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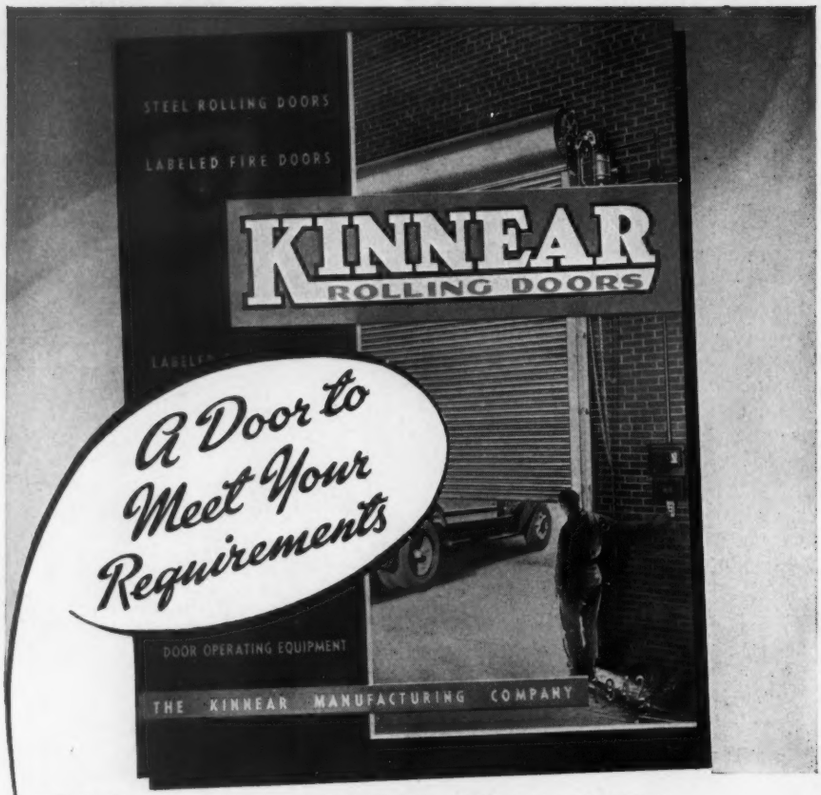

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Your clients need space-saving, time-saving Kinnear Rolling Doors with their smooth, coiling upward action. *They provide the extra protection today's production must have!* The rugged strength of their interlocking steel-slat construction guards plants against sabotage and intrusion, resists fire and damage. The doors close light-tight too, in case blackout precautions are necessary. And with all these important, timely advantages, Kinnear Rolling Doors continue to offer the utmost in easy, convenient, space-saving operation. You'll want this latest, 1942 issue of the book that *tells all* about Kinnear Rolling Doors — the book that gives you, quickly, the door information you need. It also gives you details on Kinnear RoL-TOP Doors (sectional) in wood or all-steel, Kinnear Rolling Fire Doors and Shutters, and other types in Kinnear's complete line of upward-acting doors.

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Columbus, Ohio

SAVING WAYS IN DOORWAYS
KINNEAR ROLLING DOORS

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 38)

BUILDING PRODUCTS BULLETIN OF THE PRODUCERS' COUNCIL—Bulletin No. 41, issued by The Producers' Council, Inc., 815—15th St. N.W., Washington, D. C., from which organization copies may be secured, contains information on building products and services of the following members:

Bell & Gossett Co., Morton Grove, Ill.—The Monoflo system of forced hot water heating. (A.I.A. File No. 30-C)

Carrier Corp., Syracuse, N. Y.—Type 41B2 self-contained Weathermaker unit for use in commercial establishments requiring duct distribution. (A.I.A. File No. 30-F)

Crane Co., 836 S. Michigan Ave., Chicago — Bulletin describing how I.B.R. ratings simplify boiler selection. (A.I.A. File No. 30-C-1)

General Electric Co., Schenectady, N. Y.—"Tri-Clad" motors in a new range of sizes, modifications, and ratings. (A.I.A. File No. 31-G-2)

National Fireproofing Corp., Pittsburgh, Pa.—Interesting wall effects achieved with Natco Dri-Speedwall tile. (A.I.A. File No. 10-A)

National Mineral Wool Association, 1270 Sixth Ave., New York—Fuel conservation aided by home insulation. (A.I.A. File No. 37-B)

Richmond Fireproof Door Co., Richmond, Ind.—Service Sheet No. R5 presents data on Fyrgard and Richmond metal clad doors, including blueprint drawings and specifications. (A.I.A. File No. 16-B)

Pullman Mfg. Corp., Rochester, N. Y.—How to save 334 pounds of iron and steel per house by using double-hung windows equipped with Pullman balances. (A.I.A. File No. 27-A)

Richmond Screw Anchor Co. Inc., 820 Liberty Ave., Brooklyn, N. Y.—One-piece steel anchor bolts. (A.I.A. File No. 4-D-3)

Vermont Marble Co., Proctor, Vt.—Four types of marble toilet units furnished in standardized stall units complete with door and all required hardware. (A.I.A. File No. 22-A-3)

(Continued on page 42)

Still making news

AMONG ARCHITECTS AND ENGINEERS!

Get this latest edition of Toncan Iron Pipe news. Forty-eight pages of editorial and pictorial facts about the advantages of Toncan Iron Pipe—from its qualities as an open-hearth iron to its long life of service under severe corrosive conditions.

Read these authentic facts about Toncan Iron Pipe—why it is made from *open-hearth iron, not* open-hearth *steel*—what this adds to its *rust-resistance,* its easy workability—what *molybdenum* contributes to its grain structure, its uniformity—why Toncan Iron has *twice as much copper* as the finest copper-bearing steel pipe—why this *alloyed* open-hearth iron ranks *first* in corrosion-resistance among all ferrous metals in its price class—and finally, that as an open-hearth iron, copper-molybdenum pipe is included in Federal Pipe Specification WW-P-403a.

When you know these facts—and get them *straight* from a producer of carbon steel, copper-bearing steel and alloy iron pipe—you'll see how you can add to the value of your service, by specifying Toncan Iron Pipe.

Write for a copy of the Toncan Iron Pipe book, 333-R, now. In the meantime, see Sweet's 27/3 on pipe—13/6 on sheets—23/5 on Steel and Tubes —9/1 and 21/2 on Berger—15/18 on Truscon.

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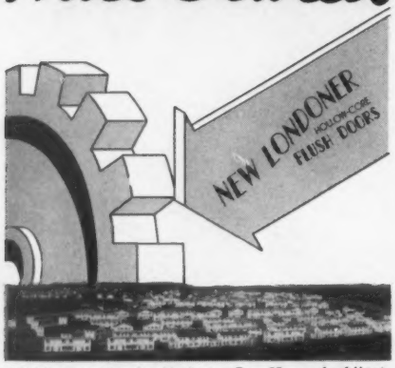
Toncan Iron PIPE

Reg. U. S. Pat. Off.

An alloy of refined open-hearth iron, copper and molybdenum—*that grows old slowly*

Price-Geared



Middletown Housing Project. Geo. Howe, Architect

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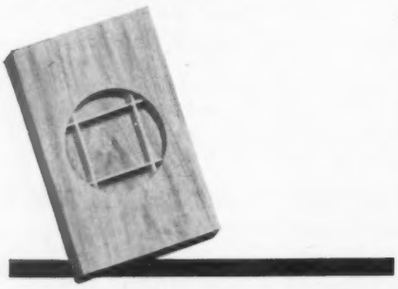
The fact you are designing or building small homes, or home-units in defense areas, should be sufficient reason for using New Londoner Hollow-Core Flush Doors. New Londoners have exceptionally brilliant service records everywhere — records that reveal low cost-per-years-of-service. This is the type of door you will want to recommend so be sure to get the story of New Londoner Hollow-Core Flush Doors. You'll find it interesting as well as enlightening. Send for this information today.



AMERICAN PLYWOOD Corporation
NEW LONDON, WISCONSIN

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 40)

WOOD PRESERVATIVE – Facts about lumber, pressure treated with its Chromated Zinc Chloride wood preservative, are contained in a 16-page catalog (A.I.A File No. 19-A-3) from E. I. duPont de Nemours & Co., Inc., Wilmington, Dela. Data presented anticipate typical problems which may arise in the use of lumber preserved with the product.

PROJECT PRIORITIES–How to get project priorities for plant expansion, new construction, and major capital additions is described in a 4-page bulletin from Wallace & Tiernan Co., Inc., Newark, N. J. The bulletin describes the what, why, and how of priorities.

Also available: Booklets describing the firm's equipment for emergency chlorination – hypochlorinators, main sterilizers, and chlorination trailers.

RESISTANCE THERMOMETERS – A comprehensive presentation of the nature, design, performance, and application of its resistance thermometers in industrial processes, refrigeration, scientific work, etc., which involve the measurement and control of temperature, is contained in an 8½ x 10½, 30-page catalog, No. 9044 from Brown Instrument Co., Wayne & Roberts Aves., Philadelphia, Pa.

HEATER-AIR CONDITIONER–Folder, 3½ x 6, on its complete line of warm air furnaces, winter air conditioners, in either steel or cast iron, and fired by coal, gas, or oil, may be had from Rybolt Heater Co., Ashland, Ohio.

Also available: 4-page folder on each of the units shown in the small folder. The large folder gives complete data, specifications, and capacities of each unit.

UNIT HEATERS – Catalog U42, from Reznor Mfg. Co., Mercer, Pa., contains specifications, illustrations, and complete data on fan, blower, and duct type, gas-fired, suspended unit heaters.

Also available: Catalog AFA41A on automatic, gas-fired, forced air heaters; Bulletin M42 on unvented spot heaters and gravity, vented circulators; 4-page price and data section for use with Catalog U42.

FIREPLACES–The ninth edition of "Book of Successful Fireplaces–How to Build Them", is now available from The Donlevy Brothers Co., 13900 Miles Ave., Cleveland, Ohio. In its 64 pages are more than 200 illustrations and designs. Discussed are factors in fireplace planning, building a successful fireplace, masonry fireplace designs, history of fireplaces, outdoor fireplaces, fireplace difficulties, heat-circulating type of fireplaces.

TONCAN IRON PIPE–A 48-page booklet, (A.I.A. File No. 29-B-8) from Republic Steel Corp., Cleveland, Ohio, presents the story of Toncan iron–what it is, where it can be used in commercial, residential, educational, and institutional buildings.

Also available: 16-page booklet describing installations of Toncan iron sheets in various types of buildings.

FLUORESCENT LIGHTING–A handy folder (A.I.A. File No. 31-F) for filing information on its fluorescent lighting equipment may be had from the Hygrade Lamp Division, Hygrade Sylvania Corp., 500 Fifth Ave., New York. Included in the folder are individual sheets on all types of fluorescent installations, together with complete technical specifications; and a catalog on the firm's Miralume units.

VENTILATING UNITS – An 8-page catalog (A.I.A. File No. 30-D-1) from Victor Electric Products, Inc., 2950 Robertson Road, Cincinnati, Ohio, shows the firm's line of In-Bilt ventilating units for residential installation. Specifications for each model are conveniently listed for quick reference, and a page is devoted to illustrating construction features.

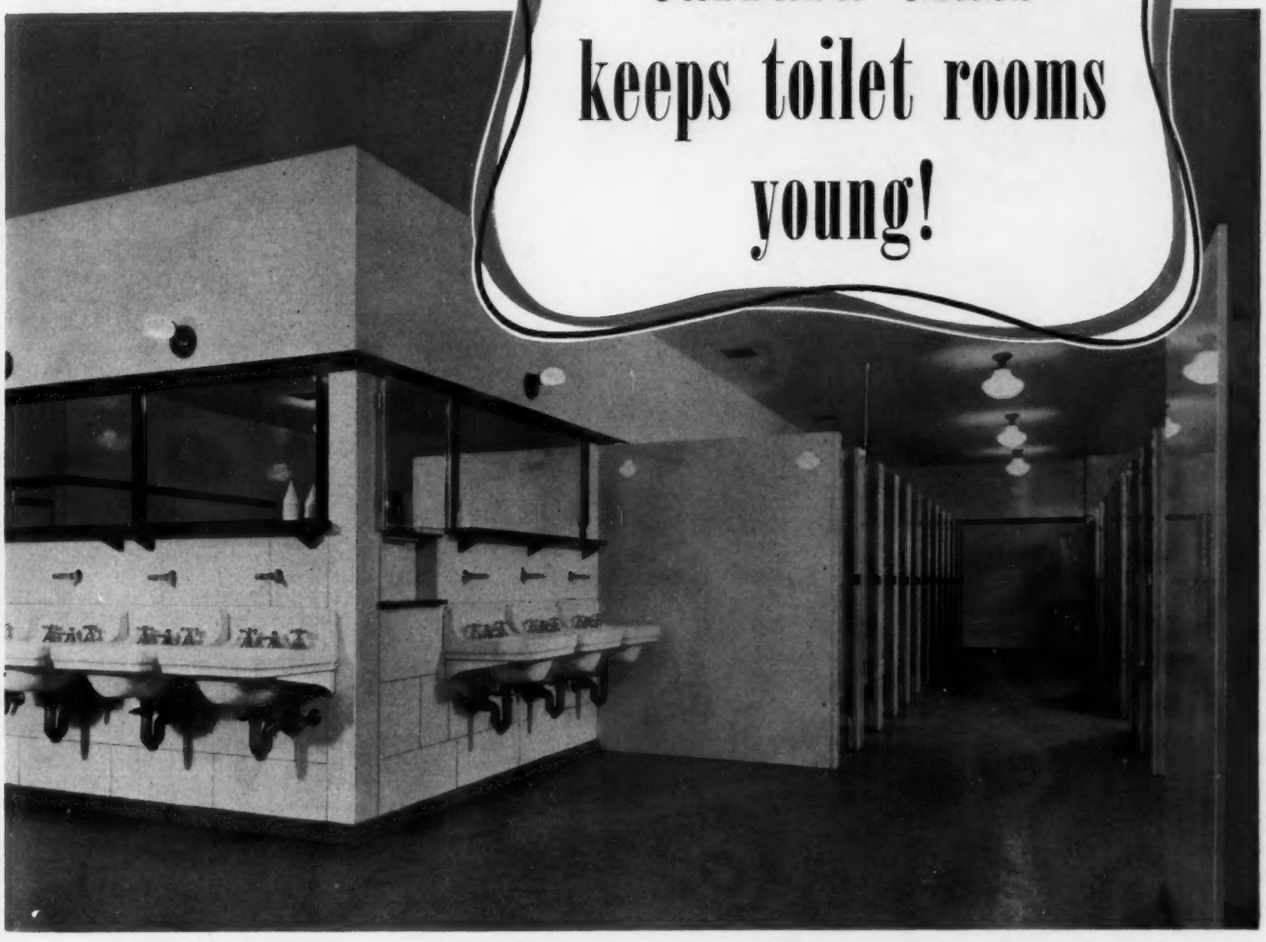
STEAM TRAPS–Bulletin No. 450, 8 pages, from Sarco Co. Inc., 475 Fifth Ave., New York, forms a section of the firm's catalog, covers floating-thermostatic steam traps, compressed air traps, and liquid level controls. Dimensioning data, capacities, installation diagrams are included.

WATER SUPPLY–"A Sound Defense Program for Your Water Supply," a 16-page 6x9 booklet from Wallace & Tiernan Co. Inc., Newark, N. J., describes a seven-point check-up system for protection of existing water supply facilities by chlorination.

(Continued on page 44)

Precision-made Carrara Glass keeps toilet rooms young!

WALLS, PARTITIONS *and stiles of White Carrara Structural Glass, with Black Carrara trim, bring beauty and permanence to this toilet room in the University of Pittsburgh's Cathedral of Learning. Architect: Charles Z. Klauder.*



WHEN Carrara Structural Glass is made, every piece of it is mechanically ground and polished to a true, flat surface. This precision method of manufacture imparts to Carrara the high degree of excellence and quality found only in a finely-machined product.

Thus, Carrara has a smoothness and reflectivity of surface, a depth and uniformity of color found only in a glass so made. Carrara joints are true and even, without lippage. Carrara never warps with age. It won't check, craze, stain, absorb odors or fade.

This glass can be decorated in various ways to achieve unusual architectural effects. It is available in a special Suede-finish for use where a soft, velvety-surfaced glass is desired. And there are no construction delays with Carrara — its application involves little, if any, use of critical materials.

Send the coupon . . . today . . . for our free booklet on Carrara. It is profusely illustrated, and contains full information on Carrara's physical characteristics, the colors available, construction details, and other data.

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Cabot-Stained House, Minneapolis. Architect: H. C. Larson

Save Money - Time - and Trouble

Cabot's Creosote Stains cost less than paints per gallon and they are easier and quicker to apply. They are a good long term investment because maintenance costs are low and their vehicle of pure creosote doubles the life of wood. They are well adapted to emergency building because they are remarkably trouble-free — a wise choice if conditions force the use of green lumber or hurried construction.

FREE BOOKLET—

Stained Houses

Generously illustrated. Contains helpful information about Cabot's Creosote Stains and Cabot's Heavy-Bodied Stains. Write today. Samuel Cabot, Inc., 1292 Oliver Bldg., Boston, Mass.

Cabot's Shingle Stains

Creosote **Heavy-Bodied**

for Defense Insulation, use CABOT'S "QUILT"

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 42)

HEAT INSULATION HANDBOOK—Included in the 176-page, 5½ x 7 ready-reference handbook from Ehret Magnesia Mfg. Co. Inc., Valley Forge, Pa., is a comprehensive insulation recommendation section which is illustrated with 91 drawings and photographs of application details. The Useful Data Section contains 24 pages of engineering tables, graphs, and definitions of technical terms. Other data are provided on heat insulations and related products.

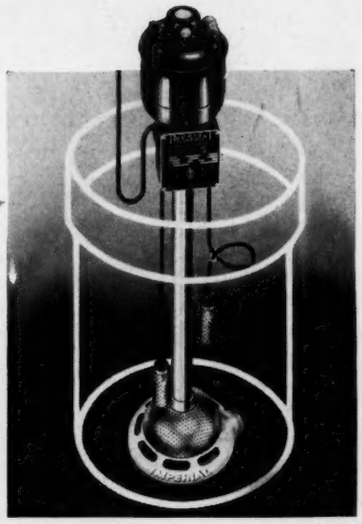
FLUORESCENT LIGHTING—A "question and answer" booklet on fluorescent lighting in the home, prepared for non-technical readers, may be had from Westinghouse Mfg. Co., Bloomfield, N. J. It has been designed to answer popular questions regarding cost, efficiency, advantages, and maintenance of residential fluorescent lighting. This 23-page, 5½ x 8½ booklet, A-3939, may be had for five cents.

PACKAGED WOOD TRIM — Its TrimPaK packaged trim for doors and windows, available in a choice of woods, is illustrated and described in several folders available from Trimpak Corp., 44 Whitehall St., New York.

HOUSING — "Rehousing the Low Income Families of Boston", is the title of a 96-page, plastic-bound book which reviews the activities of the Boston Housing Authority from 1936-1940. The book describes the eight housing projects erected in Boston during that time, pictures the typical units together with plans. Boston Housing Authority, 18 Oliver St., Boston, Mass.

CONTROLLED CONDITIONS—Complete data on Fiberglas insulation products used in the construction of windowless defense plants and on "Controlled Conditions" of temperature, humidity, noise, and lighting, are contained in a plastic-bound book of the same title, published by Owens-Corning Fiberglas Corp., Toledo, Ohio.

RUBBER PUTTY—B. F. Goodrich Co., Akron, Ohio, has a two-page catalog section No. 9765 on its Plastikon rubber putty. The section describes the properties of the product, lists the grades, gives direction for use.



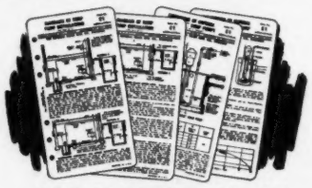
SUMP PUMPS for WAR-TIME JOBS

WHEN you select sump pumps for war projects such as industrial plants, ordnance plants, defense housing projects, and similar jobs, there are two important points to remember:

1. The high capacity Imperial "Floatless" Sump Pump handles *twice* the volume ordinarily handled by sump pumps of similar horsepower and price. This enables you to specify a low cost pump in many cases where a higher priced one formerly was necessary to provide sufficient capacity. And it enables you to *double* your safety factor on ordinary installations.

2. The "floatless" method of control eliminates the inherent weaknesses of floats. Pump starts when water in sump reaches upper electrode. Stops when lower electrode is clear. No float to stick or leak.

Thousands of these pumps have been operating for years and have established a remarkable record of reliability. Because of their *extra* capacity and *extra* reliability, they provide real ALL OUT protection.



DON GRAF DATA SHEETS

● These sheets will give you details on sump pump applications, installation diagrams and capacity data that will be useful in handling various types of drainage problems.

Write for Your Set

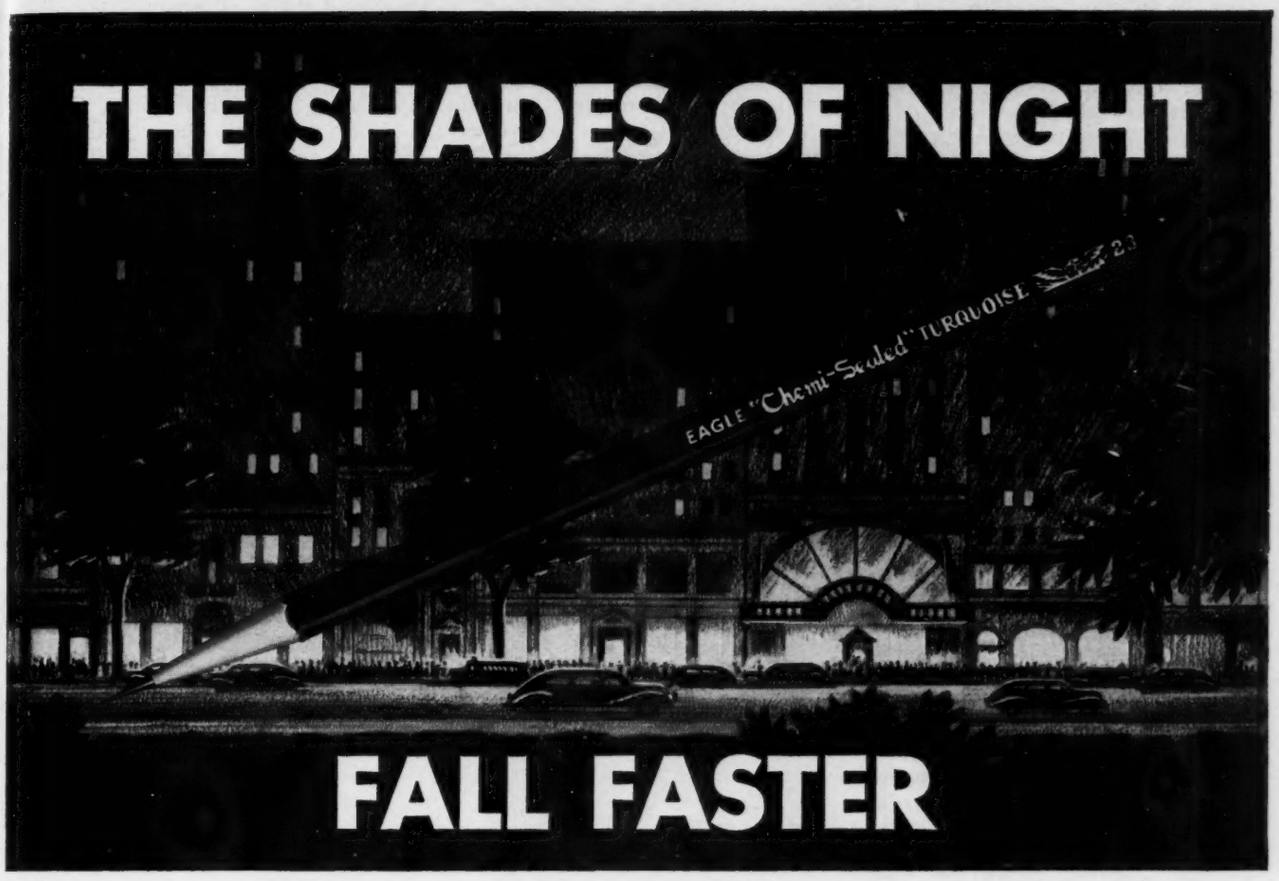
You will also find specification information in Section 27, Catalog 32, of Sweet's Catalog File.

THE IMPERIAL BRASS MFG. CO.
541 S. Racine Ave., Chicago, Ill.

IMPERIAL "Floatless" SUMP PUMPS

Reg. U. S. Pat. Off. and Canada

THE SHADES OF NIGHT



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NO NEED TO FEAR point breakage. Eagle's patented super bonding process unites lead and wood so inseparably that TURQUOISE points stand up under punishing pressure.

STOP WORRYING about gouging the surface. For permanent smoothness, every particle of graphite and clay glides on a film of lubricating waxes sealed in the lead. There are no harsh or gritty spots to tear the sheet.

AND, SPEAKING OF BLACKNESS . . . *Electronic graphite, refined down to particle sizes of 1 micron (1/25,000th of an inch), makes TURQUOISE lead so dense and opaque that it deposits a line of Stygian blackness at a single stroke!

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"CHEMI-SEALED"
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Leads and lead holders, too

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(Continued from page 36)

might be the instigating factor but present day Washington still holds an architectural appeal. Among our recent visitors were architects: *Wm. M. Ingemann,* St. Paul, Minnesota, and *Maurice Lavanoux,* New York, whose work with the Liturgical Art Society is well known. *Clarence B. Litchfield,* of Alfred Hopkins & Associates, New York, dropped down —but strictly on business. RED

PANAMA PANORAMA

We are ONE! Since our columnito first made its appearance in PENCIL POINTS a year ago, a great deal of water has flown thru Peter Magill locks and many changes have appeared on the Panama Panorama. What of the personalities who have appeared from time to time? For instance, what about *Clark Teegarden* and *Fred Herman,* of Panama pictorial map fame? Well, Clark has just married the belle of the Isthmus, with *Howard Wipf* and *Panama Pete* basking in reflected glory as ushers at the very impressive wedding service at the Cathedral of St. Luke in Ancon. The young couple honeymooned in my favorite country, Guatemala. My enthusiasm for Guatemala, which I had the privilege of visiting a year ago, has earned for me the name of F. Guatemala Dopp.

And Fred? Fred has returned to God's country—Seattle and the state that goes with it, in case there is any doubt in your mind. He took back with him an enviable portfolio of excellent water colors as well as God knows how many thousand feet of Ciné-Kodak Kodachrome to remind him of his sojourn in the tropics. Our old pal, *Sam Hitt,* has come out of his brief retirement to help his Uncle Sam with the war program. Brooklyn Navy Yard is his headquarters, where he bats out sketches on a day-and-night basis these hectic days. *Norman Little* and *Jack Buechele* are both recent daddys-in-law. *Carl Stoye* sent one of his very swell photo-Xmas cards from his new base in Jamaica.

Roger Morrow has lost his amateur standing as a water colorist. He now has an enthusiastic dealer vending his wares in New Orleans. Bravo, Major! Of the Panamanian boys, *Rogelio Navarro* has been flying down to Rio recently as a member of Panama's delegation to the big conference. The smartest thing in Panama is Rogelio's new residence within putting distance of the Panama Golf Club, of which he is the president this year. *Inocencio Galindo* is now Commisioner of Civil Defense in Panama as well as the new President of the Union Club, Panama's social center. He recently won the competition for the new Caja de Seguro Social. (Social Security Building to you, Tootsito.) *Luis Hernandez* received second prize and the *Guillermo de Roux-Octavio Méndez* team came in third. *Octavio Méndez* was also the winner of the competition for the Caja de Ahorros. (You figure that one out for yourself.)

For some time the famous Pacific Sailfish Club has felt that it should have its own clubhouse, so plans were drawn up by a group of architect-engineer members headed by *Norman Little.* In appreciation of their efforts the club tenderly tendered them a super-swell dinner. The project according to plans will be quite expansive, but with things as they are now, well. . . .

And also with things the way they are now, there will not be much of a carnival this year and hence no architects' float. People who must hammer nails are building air raid shelters instead.

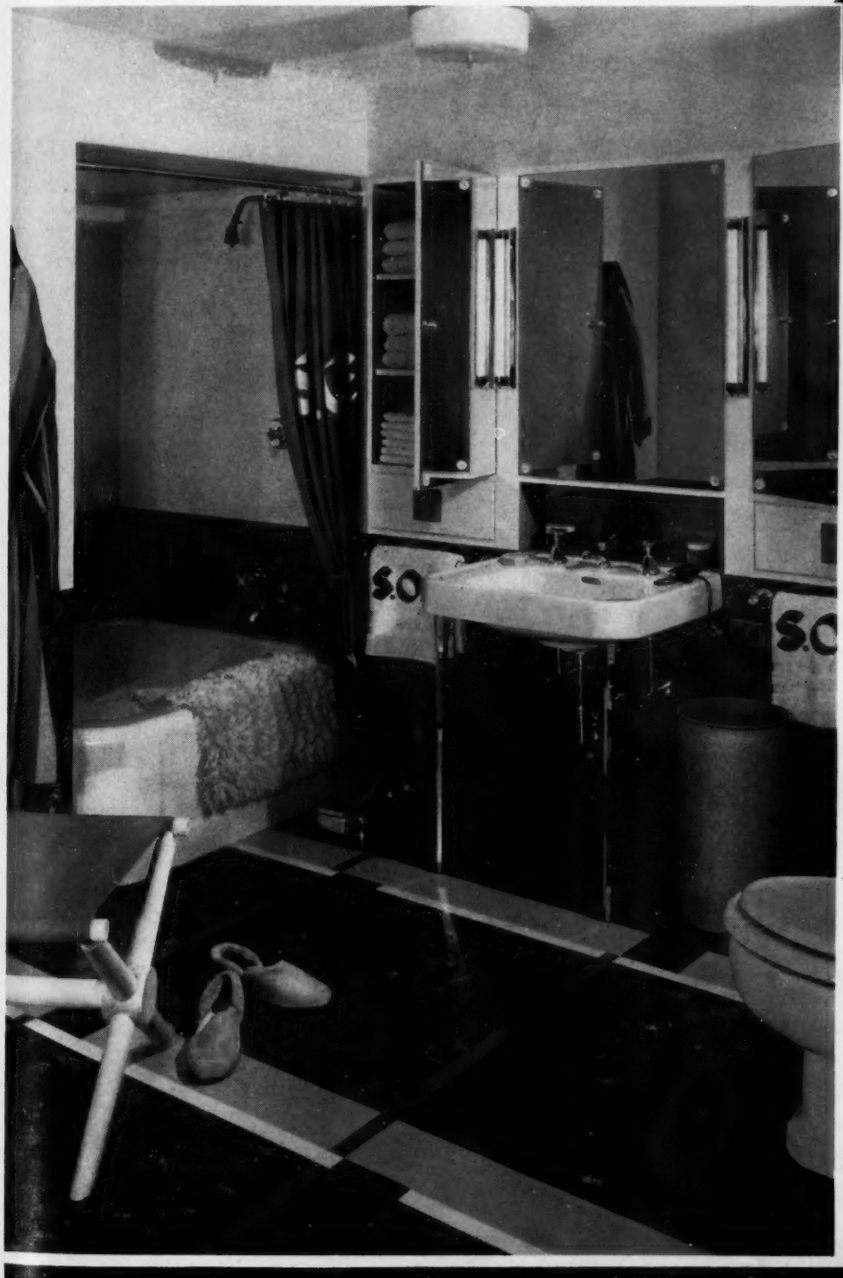
At the last dinner-meeting of the Club de Arquitectos at the Union Club, we inaugurated the new air-conditioned bar which was designed by *Luis Hernandez* and features local decorative woods of which Panama has a goodly supply. A newcomer at the bar was *Chuck Stewart,* who found his old U. of Ill. buddy, *Octavio Méndez,* down here. Another recent newcomer to the Zone is *Talbert Jones,* of the U. of Minn. Joneses. At a previous meeting of the Club the boys had impromptu fun caricaturing one another none too flatteringly on a slate black board borrowed from the billiard room.

Our old Washington pals, *Carl Schloctor* and his charming wife, were stationed here for a short time in connection with some designing for the third locks project. They had a chance to make a side trip to picturesque Costa Rica, our good neighbor to the north, in case your geography is as hazy as I think it is. *George Graeber* has returned from a holiday jaunt to the States, which included a side trip to Washington to see his old buddies in what was called the Procurement Division in the old days. George brought back a super-deluxe, stream-lined portable typewriter for Panama Pete, all the better to get out this column with, my dears. *Hasta luego!*

PANAMA PETE

Prepared exclusively for architects is a monthly bulletin service, "Design of the Month", issued by Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, Pa., which shows the many possibilities in the modern treatment of store buildings. Realizing the importance of new store front design in merchandising technique, the firm has gathered twenty-five of the design renderings, known as the Loan Collection of the Month, which is available for exhibit showing to any architectural society or accredited school of architecture. The designs, printed in color, from drawings approximately twice their size, serve as reference documents in design, construction, and rendering. The collection consists of 21 renderings 22½"x 20"; two renderings 39½"x28½"; two renderings 19¾"x28½". The photograph at left shows a portion of the exhibit on display at a recent showing.

"IF YOU WANT MY QUICK APPROVAL specify this modern wall finish"



YOU CAN COUNT on a quick okay from your clients, when you specify walls of Armstrong's Linowall. There's good reason why. Linowall has features hard to match at any price, yet it costs no more than other permanent wall coverings.

Linowall's colors retain their richness for years. The material is tough and long wearing . . . resists dents and cracks . . . and soap and water clean it in a jiffy. What's more, this linoleum-like wall covering is flexible . . . easy to work with . . . adaptable to almost any decorative treatment.

You can get complete facts on Linowall in Sweet's, or write for "Decorative Walls of Enduring Beauty." Armstrong Cork Company, Floor Division, 1232 State Street, Lancaster, Pennsylvania.

● AS AN ARCHITECT, *you'll appreciate the extreme versatility that makes Linowall adaptable to almost any problem. In this smart bathroom, the wainscot of Sienna Red No. 710 and upper walls of Tan No. 706 brighten up the whole interior . . . at a cost that's remarkably moderate. Floor is Armstrong's Marbelle Linoleum No. 017 with a trim panel treatment composed of copper rust and white Linostrips plus contrasting bands of black and fawn.*

ARMSTRONG'S LINOWALL

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM • ASPHALT TILE • RUBBER TILE • CORK TILE • LINOTILE (OIL-BONDED)

PUBLIC WORKS PROJECTS

Use in Defense Public Works projects of steel and other critical materials will be cut to an absolute minimum, according to a basic construction policy recently announced by *Baird Snyder, III,* Acting FWA Administrator.

Under the new policy, buildings constructed under the DPW program will be limited to one- and two-story masonry, and one-story wooden structures. These limitations apply to schools, hospitals, firehouses, and virtually all other types of buildings provided under the program; not only those to be approved in the future, but also those which have been approved already, but for which contracts have not yet been let. Wood will be used where the need appears to be purely temporary, except that masonry will be recommended in all areas subject to enemy action.

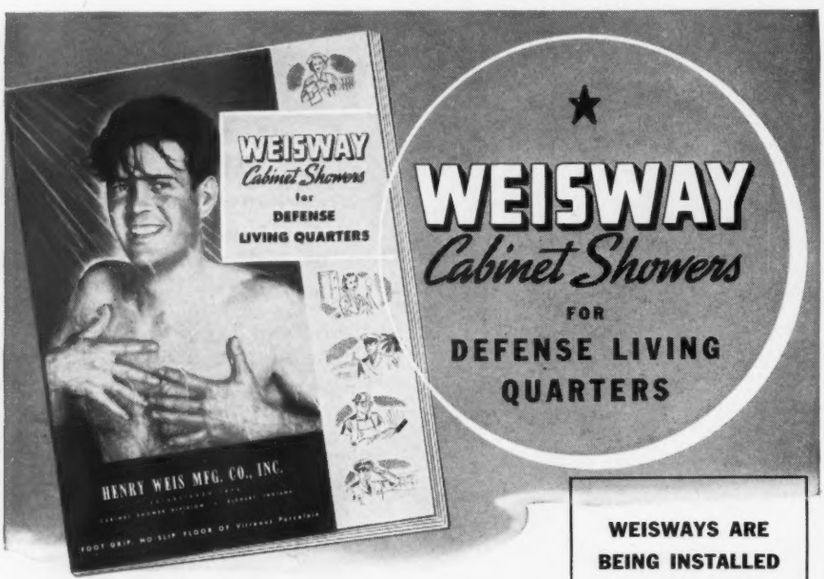
Specifications have been worked out for a basic masonry unit with concrete foundation and floor, which is set over a gravel fill. Sixteen-inch concrete pillars will support a concrete roof. The walls may be of concrete, cinder block, or brick. Windows will be of wood, set flush with the outside of the wall.

These masonry structures will be fireproof and bomb-resistant. In two-story buildings, concrete stairs or ramps will connect the floors as required. These will not be wall-bearing structures.

Standard widths up to 58 feet, and variable lengths, make it possible to arrange basic units like dominoes so as to provide the amount of space needed. While the applicant will determine the details of interior arrangement, a center-corridor plan will be followed along the lines of the pillars, which will be spaced more widely in schools than in hospitals, health centers, and other buildings.

Similar specifications have been worked out for two types of wooden structures, one purely temporary and the other fire-resistant and more permanent.

Auditorium-gymnasiums required for schools will be built of wood and connected to the basic masonry buildings by covered passageways.



★ A quick glance down the column at the right shows instantly how extensively Weisways fit into our Nation's "all out" military and production program.

These complete, self-contained, leakproof baths have the qualities of adaptability and dependability which meet, exactly, the problems of bath facilities in all types of civilian defense housing as well as in our far-flung Military and Naval establishments.

Already Weisways are helping maintain the health and morale of our fighting forces and of the men and women on the all-important production "front"—and many thousands more will be required for the vast expansion to be made this year. Architects should have complete and up-to-date information about Weisways for today's vital needs.

New catalog booklet, in full color, illustrated above, is just off the press. ***Write us now for your copy, without obligation.***

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Defense Plants
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WEISWAYS MEET BATH REQUIREMENTS IN DEFENSE HOUSING PROJECTS
WEISWAYS HELP TO KEEP OUR FIGHTING FORCES FIT
REMODELING Meets Critical Need for DEFENSE HOUSING

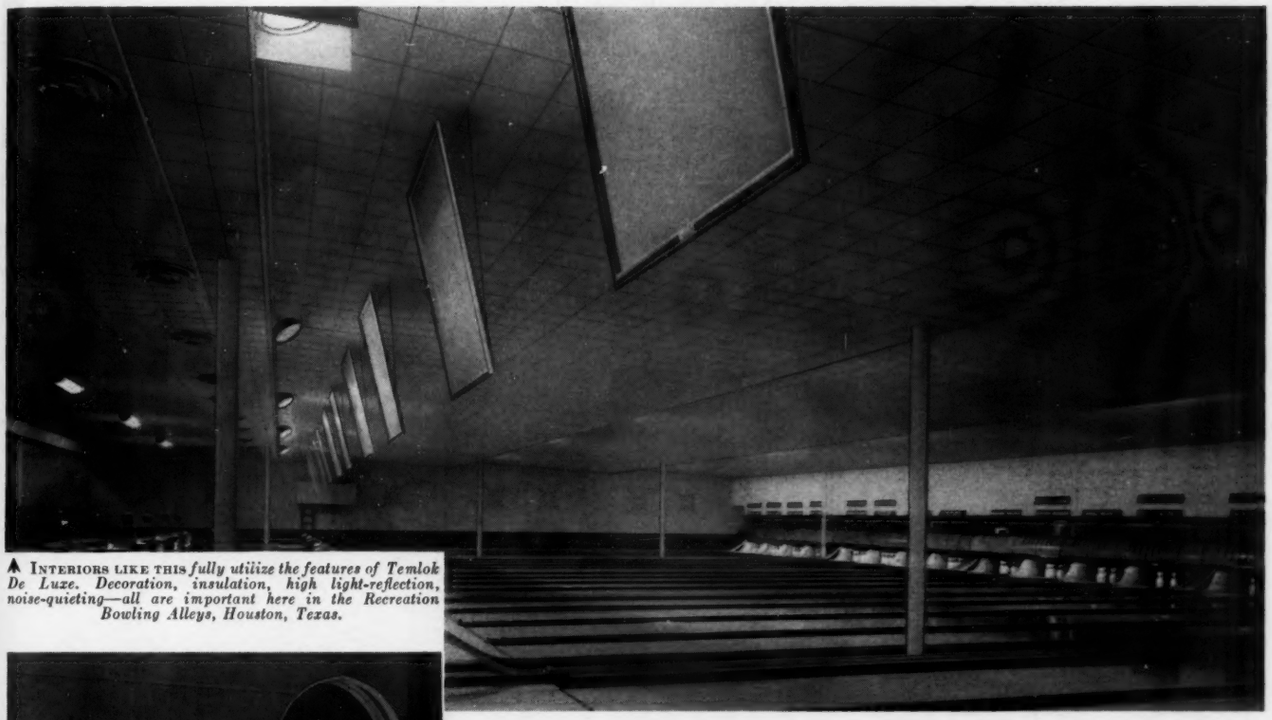
DEFENSE CONTRACTS

Under government requirements all holders of defense contracts must file duplicate copies of their drawings of the particular equipment being manufactured. These duplicate copies must take a definite form and must comply with definite specifications. The Frederick Post Co., Box 803, Chicago, Ill., is offering condential advice to government contractors and subcontractors on a time-saving method of reproducing drawings required under these contracts. Request for information should state whether the contracts held are for the Army, Navy, Air Corps, or whatever governmental department is involved.

LANG HONORED

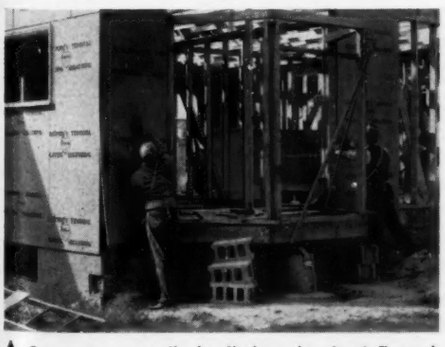
A civic dinner in honor of *Otto H. Lang,* dean of the architectural profession in Texas, was planned by his friends in the construction business for February 27, in Dallas, Tex. Lang, who has practiced in Dallas for 54 years, recently announced the retirement from business of his firm, *Lang & Witchell,* and his association in an advisory and consulting capacity with *Grayson Gill,* Dallas architect and engineer. The firm's principal plan files and goodwill have already been transferred to Mr. Gill.

This whole TEMLOK family does more than insulate



▲ INTERIORS LIKE THIS *fully utilize the features of Temlok De Luxe. Decoration, insulation, high light-reflection, noise-quieting—all are important here in the Recreation Bowling Alleys, Houston, Texas.*

▲ LARGE BOARDS *of Temlok Lath are quickly and easily nailed to joists and studding. They provide efficient, lasting insulation, and a strong, firm, and permanent base for plaster finish (exceeds U. S. Commercial Standards).*



▲ ONE MAN *can easily handle large boards of Temseal Sheathing. It is light in weight, yet strong and rigid. The double seal of asphalt and kraft paper prevents air and moisture infiltration—guards insulating efficiency.*

ARMSTRONG'S Temlok, in all its forms, is top-efficiency insulation—but that's not all! Temseal Sheathing is also a structural material, replacing wood sheathing and building paper. Temlok Lath replaces other plaster bases. Temlok De Luxe is a complete interior finish applied in one operation. Thus, all three do another cost-saving job *in addition to providing insulation.*

TEMLOK DE LUXE (Interior Finish)

This quickly installed, factory-finished insulation board offers pleasing decoration for all types of interiors plus the practical features today's building owners look for. These include *efficient insulation, excellent light-reflection, effective noise-quieting.*

TEMLOK LATH (Plaster Base)

Meets requirements for a firm-bonding plaster base (exceeds U. S. Commercial Standard for strength by 77%)—also provides efficient insulation. Comes in conveniently sized boards easily cut and handled. Plaster spreads on easily, is smoother than that obtained with ordinary plaster base.

TEMSEAL SHEATHING

Temseal Sheathing is Temlok Insulation sealed against air and moisture infiltration with a double coating of asphalt and strong kraft paper. It is light in weight, yet strong and rigid. Large boards in standard sheathing thickness are easily handled and installed.

Get all the facts about this hard-working Temlok Family, including the full line of Armstrong's Hardboards. See Sweet's, or write direct to Armstrong Cork Company, Building Materials Division, 911 Concord Street, Lancaster, Pa.

ARMSTRONG'S TEMLOK INSULATION

SHEATHING • LATH • DE LUXE INTERIOR FINISH • HARDBOARDS • MONOWALL

WHERE ARE THEY?

Unsolicited material returned recently to several contributors by the editors of PENCIL POINTS has been returned by the post-office since it had no record of their whereabouts. In an effort to locate these contributors, PENCIL POINTS is printing their names and last-known addresses, and requests its readers to notify the magazine should they know the present address of the following men:

LeRoy Grumbine, 1216½ Trenton St., Los Angeles, Calif., *Ernest Jonson,* 126 W. 12th St., New York; *J. T. Ridley,* 3872 Boston Road, New York; and *H. Van Pelt,* 513 Crescent St., Grand Rapids, Mich.

The editors also have on hand an article, "Modern Architecture —A Revaluation", which the author (unknown) may have upon request.

The contributions will be held until August 1, after which they will be disposed of.

NAVY "E" TO MUELLER

The right to fly the Bureau of Ordnance Flag and the Navy "E" Pennant for excellence and timely performance of Navy contracts was given recently to Mueller Brass Co., Port Huron, Mich., manufacturer of valves, fittings and other brass and copper products. The firm is now devoting its entire facilities to the production of Army and Navy requirements. Recognizing the significance of the honor, the Port Huron *Times-Herald* published a special section on February 12 devoted to stories and pictures about the firm's activities.

WESTCHESTER ARCHITECTS ELECT OFFICERS

George A. Boehm was re-elected president of the Westchester County (New York) Society of Architects at the Society's annual meeting, held February 11, in White Plains, N. Y. Other officers for the coming year are: *Louis Levine,* vice president; *Edwin F. Hayner,* secretary; and *Ted Arthur Homa,* re-elected treasurer. The following men were elected to serve as directors for three years: *George A. Boehm, Phillips B. Nichols, Louis Levine,* and *Reynold E. Paufve.*

SUMMER COURSES

The Department of Architecture, College of Fine Arts, Syracuse University, Syracuse, N. Y., will conduct six courses in architecture during the 1942 summer session, according to an announcement from *Professor L. C. Dillenback,* Director. The courses will cover a six-week period of study in Elements of Design and Theory of Architecture; Introduction to Construction; Materials of Construction; Freehand Drawing; Architectural Design; Shelter.

FWA ARCHITECTS

In a move to decentralize FWA construction activities, *Baird Snyder, III,* Acting FWA Administrator, has appointed three regional representatives to facilitate FWA programs. Local architects for individual projects are to be chosen from names suggested by the American Institute, according to Mr. Snyder, and every effort will be made to lease sites for prefabricated, demountable houses rather than to purchase such housing sites outright.

Director for Region I (the New England States, and New York, Pennsylvania, and New Jersey, with New York City headquarters) is *John T. Egan,* who has been regional director of the United States

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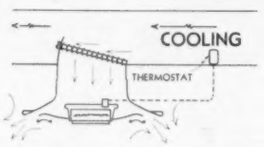
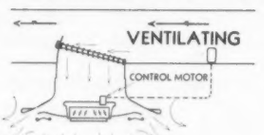
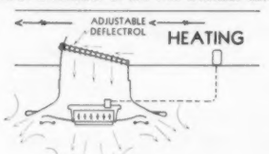


A thermostat in the supply duct positions the blades in a multi-vane damper unit below the throat. With cooling air, the damper is closed, and the air is all diffused outward to fall naturally toward the floor.



With air at ventilating temperature, the damper is partly opened to force a portion of the air in a mostly downward direction. One thermostat in the fan system will control a number of the Air Diffuser units.



To overcome the natural tendency of warm air to rise, the dampers are fully open and the main body of supply air forced directly downward toward the floor. High temperature gradients between ceiling and floor are eliminated.

BARBER-COLMAN originates a much-needed unit — a ceiling-type air diffuser with *automatically controlled* directional air throw. In places with high ceilings where both heating and cooling are required in the course of the year, this new unit will provide correct air distribution under all conditions *without the need for any manual readjustment.*

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The first installation of these units is going into a huge war materiel plant having 40 feet of clear headroom under the trusses, and with supply air temperatures ranging from 60° for cooling to 100° for heating. Thorough preliminary tests, made in an existing building of comparable height, assure that the desired results will be obtained. Further details may be obtained through your Barber-Colman representative.

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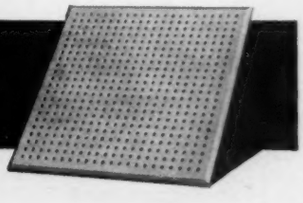
ARMSTRONG'S CUSHIONTONE



MADE BY THE MAKERS OF ARMSTRONG'S CORKOUSTIC

Housing Authority, FWA, since 1939. Director of Region 5 (Texas, Louisiana, Arkansas, Oklahoma, New Mexico, with Fort Worth, Texas headquarters) is *James Bradner*, former chief of the defense housing management section, FWA. Director for Region 6 (California, Nevada, Arizona, Utah, Oregon, Idaho, Washington, with San Francisco headquarters) is *Pierce Williams*, formerly director of the FWA defense housing field office at Los Angeles. Appointments for the three other regions will be made shortly.

It is the intention of the FWA to request from the A.I.A. a panel of local architects residing in or near the specified municipality who, in the opinion of the Institute, would have adequate facilities to design and supervise the construction of the project in question. The Institute will furnish names without distinction between members and non-members of the Institute. From the panel, the FWA will select an architect with the understanding that he would associate with an engineer in the undertaking.

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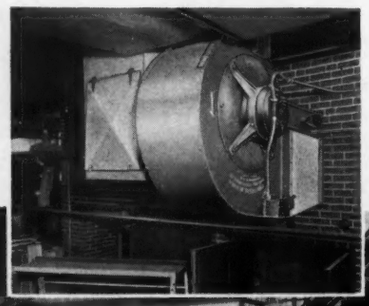
ARCHITECTS' CHOICE

St. Louis, Mo., architects Klingensmith and Grover, 4232 West Pine Blvd., planned these ventilating installations in the new plant of the Duke Manufacturing Co. Duke is producing kitchen and food dispensing equipment for restaurants, army and navy mess halls.



FOR POSITIVE ALL-WEATHER VENTILATION, four 30-in. ILG Propeller Fans (*two shown above*) were installed in the monitor of the Duke plant. The BC 55-in. blower unit (*inset*) draws air from outside and discharges through heating coil and air filters into the paint and drying department . . . *Send for free catalogs — ILG Propeller Fans, No. 141 — ILG Universal Blowers, No. 241.*

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COMPETITIONS

FITCHBURG AIRPORT COMPETITION CANCELED

Because of the use of critical materials in the construction of the proposed Administration Building at the Fitchburg (Mass.) airport, the War Production Board in Washington has asked that this construction be deferred for the present. Hence, the competition for the proposed airport Administration Building, announced in good faith (page 70, February issue of PENCIL POINTS), has been postponed. *Joseph Hudnut*, Professor of Architecture at Harvard University, professional advisor for the competition, has notified each architect who had requested a copy of the program.

The Competition Commission hopes that the postponement may be brief. In any event, it will not proceed until it is assured that the construction of the building will not in any way interfere with the war effort of the government.

It had been suggested that the Commission proceed with the competition by offering a substantial money prize to the winner in lieu of the commission for the work. It had also been proposed that the Municipal Authority award the winner a commission for the work with the provision that this work would be undertaken at some future date. However, both of these proposals were found to be impracticable.

A.I.S.C. AWARDS

Students from Iowa State College took all the prizes in the recent annual Students' Bridge Design Competition conducted by the American Institute of Steel Construction. Winners were *Everett Thorbrogger*, first prize; *R. Kenneth Kendall*, second prize; *Carlton Mueller*, third prize; *Gordon Johnson*, first mention; *Wayne A. Norman*, second mention; *Dick Utterback* and *Ralph A. Krass*, honorable mention. The problem of this year's competition was a steel bridge over a river crossing.

GRADUATE FELLOWSHIPS

The University of Pennsylvania, School of Fine Arts, Philadelphia, Pa., has announced three graduate fellowships and a scholarship in architecture. The fellowships (two *Theophilus Parsons Chandler Fellowships* and the *Joseph V. Horn Fellowship*) provide advanced study for graduates of approved architectural schools who

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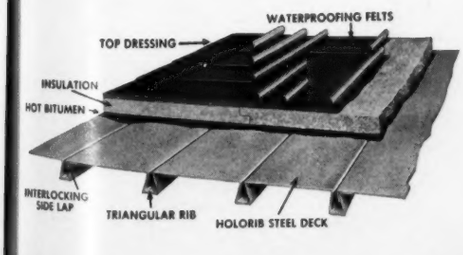

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have shown outstanding capacity and promise in their undergraduate years. The *Albert Kahn Scholarship in Industrial Architecture* is a part-tuition scholarship which will be awarded to a student who has completed four years of a four-year or five-year course in Architecture, and has shown outstanding ability in both design and construction.

Application blanks may be had from the Chairman of the Committee on Prizes and Scholarships. Applications must be made not later than April 15.

STANFORD WHITE WORK ON EXHIBITION

The Museum of the City of New York, Fifth Ave. between 103rd and 104th Sts., has opened a special exhibition, "The New York Work of Stanford White", which will continue to the end of May. The exhibition shows in drawings, prints, and photographs the many structures, past and present, which were designed by Mr. White. Most of the exhibition, which has been loaned by McKim, Mead & White, depicts the Victorian tradition characteristic of Mr. White's designs.

OBITUARIES

ARNO KOLBE

Captain Arno Kolbe, New York architect and former Army officer, died February 19 in Yonkers, N. Y., aged seventy-two. A graduate of the University of Pennsylvania School of Architecture in 1902, he was a member of the architectural firm of Fellheimer & Wagner, New York.

THOMAS W. LAMB

Thomas White Lamb, noted theater architect, died February 26 in New York, aged seventy-one. Although he achieved his widest fame in the design of theaters and other places of amusement, he also drew the plans for many other New York City structures. He won honorable mention in 1932 in a world-wide competition for designs for the Palace of the Soviets in Moscow.

MANUFACTURERS' DATA WANTED

ROLLIN WOLF, *Architect,* 1713 Highland St., Allentown, Pa. (Data for complete A.I.A. file.)

L. F. NULTY, *Architect,* 325 Washington St., Savanna, Ill. (Data for complete A.I.A. file.)

OTIS A. WALKER, U. S. Engineer Office, 409 Flatiron Bldg., Norfolk, Va. (Data for complete A.I.A. file.)

BEECH AIRCRAFT CORP., Plant Engineering Department, Wichita, Kans. (Data on building materials dealing with industrial buildings.)

GLANVILLE DOWNEY, *Librarian,* School of Fine Arts, Yale University, New Haven, Conn. (Data and material for complete A.I.A. file.)

DAVID TAMMINGA, *Student,* 24 West 108th St., Chicago. (General literature and data for complete A.I.A. file.)

M. H. GEMMILL, Holden Apartments, Chambersburg, Pa. (Construction data; data on reinforced concrete construction, steel windows, etc.)

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Royal Barry Wills

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There have been architects for five thousand years, yet the heritage of their accumulated experience does not spell the answer to success in the world of today. Why? Because the practice of architecture has been forced to take a course in business and to accept efficient, aggressive organization as the price of survival.
This Business of Architecture now steps into the breach in an attempt to do at least a little something towards clarifying the situation, towards showing how to get a job and to make a reasonable profit as well.
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These lessons cover fundamental strokes; the indication of rough and smooth stonework; brickwork at large and small scale; various wood textures; structure and foliage of pine trees, oak trees, birch trees, and elm trees; the indication of roof textures; evergreen shrubbery and flowers at large and small scale.
A single lesson offers pointers on composition; each lesson consists of brief yet adequate text, together with one or more illustrations. The latter are not only expertly done in Kautzky's inimitable manner, but they are reproduced by a gravure process on a paper of much the quality of that employed for the original drawings, with the result that the reproductions are practically indistinguishable from the originals. Lovers of pencil work will want this book for these reproductions.
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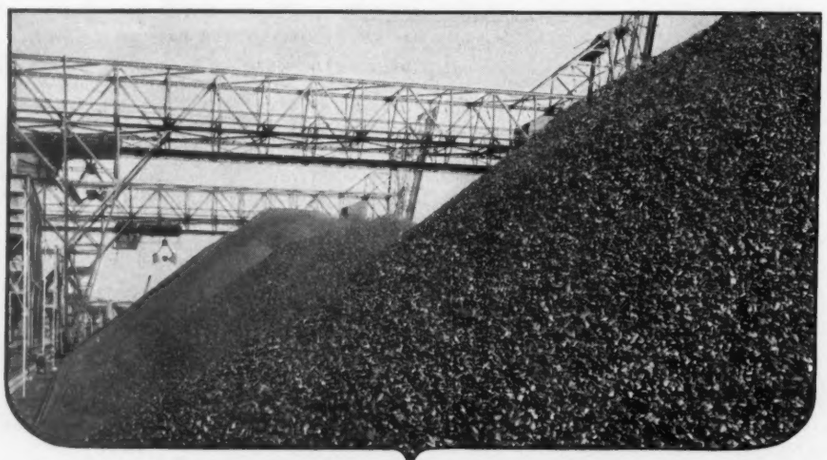
GOLDWIN GOLDSMITH, Professor, Department Architecture, University of Texas, Austin, Texas, has the following early issues of PENCIL POINTS for sale: Vol. I, Nos. 1, 4, 5 (five copies), 6, (two copies); Vol. II, No. 9; Vol. IV, No. 9; Vol. IX, No. 9.

EMILY H. BUTTERFIELD, *Architect,* Box 293, Algonac, Mich., wishes to sell a number of architectural publications from her library. List available on request.

S. W. DODD, P. O. Box No. 1, Barberton, Ohio, has the following issues of PENCIL POINTS for sale: Jan. 1932-June 1940–8½ years, 102 copies, $20, F.O.B. Barberton.



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E. E. ROBERTS & ELMER C. ROBERTS, INC., *Architects,* have moved their offices from 82 W. Washington St., to 22 E. Huron St., Chicago.

JOSEPH J. SCHLOSSER, *Architect,* has moved his office from 8511 Colesville Road to 8632 Colesville Road, Silver Springs, Maryland.

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WANTED – ESTIMATOR qualified to take off heating and plumbing materials preparatory to purchasing. Write *James T. White,* Superintendent of Mechanical Division, Virginia Engineering Co. Inc., Naval Air Station, Norfolk, Va.

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ARCHITECT, college degree, sixteen years varied experience including eleven in New York, largest projects, wants position anywhere in South. Age 40, married, good health, best references. Address Box 108, PENCIL POINTS.

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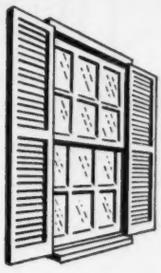

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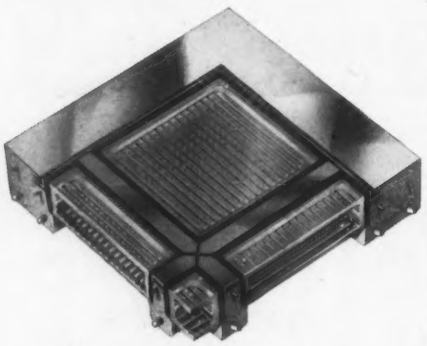

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(Continued from page 58)

lution against Spain began the decline of the power of the missions in government. It was completed in 1834 with their secularization. Their individual history from that time onward varied but was generally one of further decline. As years passed some were returned to the Church only to be restored with an unsympathetic hand. Others went to complete ruin, while a few have been authentically restored.

Will Connell, aware that much history and many sketches of these missions were available, still felt the lack of an adequate photographic record of these buildings in their present state. His record is that of the camera artist, yet he has included brief comments on his subjects. This book may serve as a guide to travelers and a souvenir of a pleasant journey.

JOHN C. SEWARD

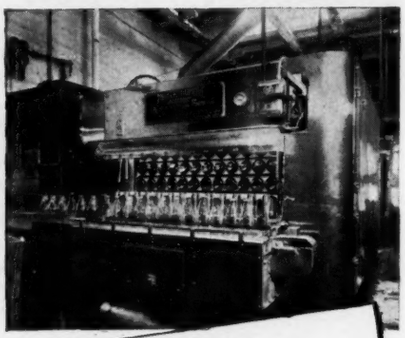
YUCATAN, *by Lawrence Dame ($3, 374 pages, illustrated, 6" x 9"—Random House, Inc., New York)*

Having lived and travelled in Yucatan for several years Lawrence Dame has written on the daily life of the people, particularly the Maya Indians, the country, its trees and flowers, its wild life, its buildings ancient and modern, its sun worship, and its climate. It is a unique blending of travel narrative and serious study of this little known tropical region, the temple studded peninsula of Yucatan. Quantities of scientific volumes have been written on its ethnology, architecture, art, and history, but here we get a fusion of all these facts, smoothly written, giving a breath of life and an understanding to these ancient mysteries.

The choice of words in themselves gives an atmosphere so that the impression created seems unique for this country. You are warmed by the sun, smell the stenches and perfumes and above all get the feeling of having been there yourself. Perhaps the most remarkable thing are the glimpses one gets here and there of the mysterious and ancient life of these same Indians as they lived many centuries ago, peopling and giving life to the extensive and magnificent temples and palaces now buried deep in the jungles. After having read this book one not only gets the impression of having been there but also the wish to go there, see it, and feel it.

WILLIAM LAWRENCE BOTTOMLEY

Profits in Process



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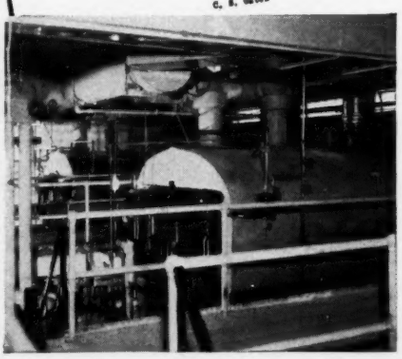

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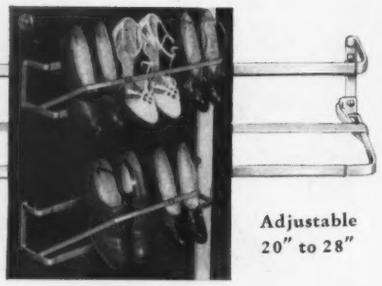

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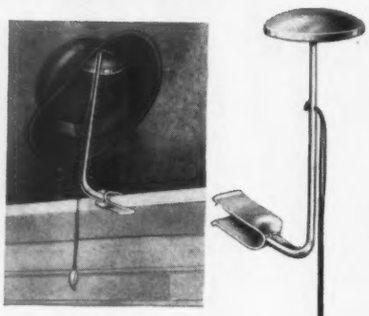

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Easy pull
brings hat
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Closets planned for true convenience are generously fitted with Stanley Closet Hardware. It provides the "place for everything" that keeps a closet tidy. Bars, Racks, and Hooks to fit all shapes and sizes of closets are listed in the Stanley Catalog No. 61. It describes the complete line of Stanley Hardware, and it's a book you should have for ready reference. Write for your copy today. The Stanley Works, New Britain, Conn.

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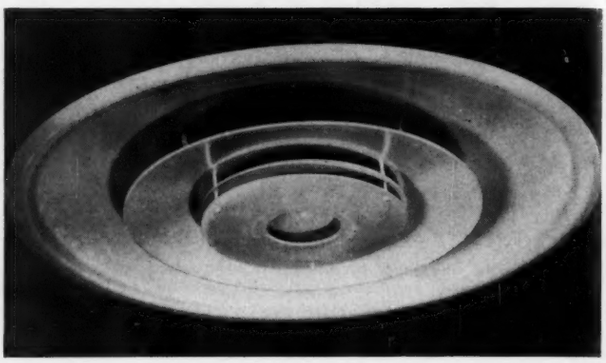
ADJUSTABLE AIR DIFFUSER

In addition to draftlessly diffusing large volumes of air at high velocities and equalizing room tempera-



ture, a feature of the Kno-Draft ceiling diffuser is its adjustability. The entire inner cone assembly may be raised or lowered to vary air direction from vertical to horizontal. In cooling systems the inner cone assembly is lowered to obtain a horizontal air flow; in heating systems it is raised for a vertical air flow, forcing downward the warm air that normally has a tendency to stratify at the ceiling.

Formerly fabricated of spun aluminum, the unit is now made of steel. Kno-Draft diffusers may be obtained in a unit combining diffused supply air, and return or exhaust in one terminal. They are also available with built-in direct or indirect lighting. From Dorex Division, W. B. Connor Engineering Corp., 114 E. 32nd St., New York.

BLACKOUT MATERIALS

The Philip Carey Mfg. Co., Lockland, Cincinnati, Ohio, has developed a series of blackout materials to meet the various requirements involved. The products, which provide protection both to property and personnel, include blackout coating for indoor and outdoor application to prevent light reflection; blackout board, made of laminated asphaltic composition, moisture- and condensation-proof, cut to window size, for removable panel installations; blackout paper, suitable for temporary repairs to window damage; Rejuvo system of camouflage—special material and equipment for effective camouflage. To meet the need for a weatherproof, exterior blackout treatment, the firm has developed the Carey Laminated System, consisting of the application of a thick film of asphaltic coating in which is embedded an asphaltic-saturated fabric membrane topped with a finish of the asphaltic coating. This treatment is said to effect a complete blackout and render glass shatterproof.

PROTECTIVE LIGHTING

Goodrich Electric Co., 4600 Belle Plaine Ave., Chicago, has announced production on the Elipso Standlite, a type of protective illumination for use around industrial plants. Because of its elliptical shape, the fixture provides a wide lateral distribution of light. With proper spacing of fixtures, a brilliant barrier of light is created around property lines without illuminating buildings and grounds. Watchmen remain in

the darkness and can instantly spot the entrance of any intruder into the brightly-lighted area. Two styles are available. The Direct Style delivers light laterally; the Angle Style provides a slight forward throw of light. Units are finished in porcelain enamel, are weatherproof, and easily installed and serviced. They are designed for mounting on a standard two-inch pipe, and conform with FBI specifications.

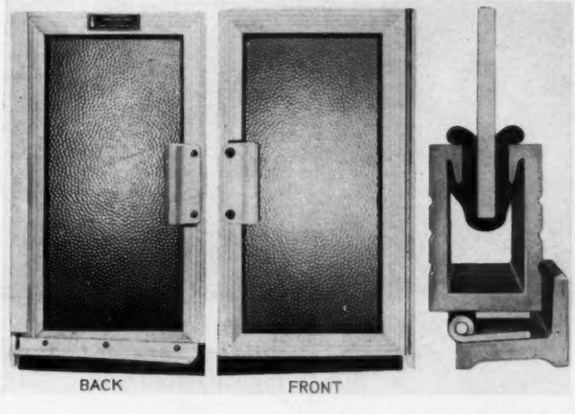
GAS-FIRED CONDITIONER

Designed especially for defense housing work is the new Series FCS gas-fired conditioner, product of Surface Combustion Co., Toledo, Ohio. The new units incorporate Multi-Thermax heat exchangers—a battery of heavy gauge steel tubes which are vertically placed with horizontal fins projecting into the air stream. Each tube is equipped with internal heat absorbers. The Amplifire burner unit is made of gray iron into which is welded a series of corrugated strips forming the burner ports. As there is an individual burner head for each heat exchanger section, all burner flames are confined within the heating sections.

The blower fan is motor driven through endless-type V-belts. All controls are enclosed inside the casing and are accessible from the front. The FCS unit is made in three capacities—60,000, 75,000, and 90,000 Btu input. The limited floor space required for its installation makes it possible to install the unit in a small closet, utility room, a corner of the kitchen, or in the basement.

PLASTIC SHOWER DOOR

Use of extruded plastic in shower doors and enclosures has been announced by American Shower Door Co.,



Los Angeles. Glass is pressure-set in non-deteriorating rubber to provide protection against breakage, and to insure a tight fit. The door can be made to roll away, or to open in or out. A special anti-drip device deflects water into the trough, prevents door from leaking when open. Doors are supported their entire length with piano hinges, come in various sizes, styles.

(Continued on page 64)

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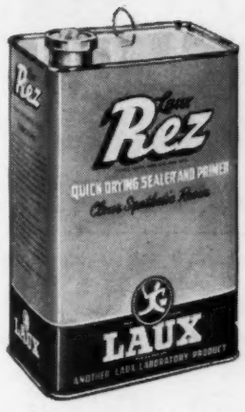

SWELLING and BINDING caused by moisture penetration in doors, sash, cabinets, etc., can be controlled by sealing and priming first with Laux REZ, clear synthetic resin sealer.

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A typical example of how Jamison creates doors to meet all needs

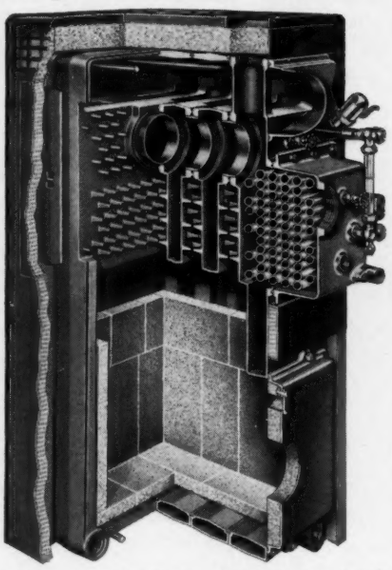
JAMISON-
BUILT COLD STORAGE DOORS

See our catalog in Sweet's Catalog Files

(Continued from page 63)

SMALL HOME OIL BURNER

Designed to give oil heat for the small home is the new Spitfire oil burner from Columbia Radiator Co., McKeesport, Pa. The compact unit is thoroughly insulated and dustless in operation.



Features of the unit include the firm's Aquabase —a water-backed base that makes possible a permanent burner adjustment; ample combustion space for complete burning of the fuel; easily-replaceable combustion chamber lining of standard fire bricks; Turbulator baffles—fin-studded heating surfaces which are shaped and staggered to provide for the quick and complete transfer of heat from flame to water; cast iron boiler sections; and inch-thick Aircell insulation.

Flueways of the Spitfire are readily accessible from both sides for cleaning, and the burner is easily reached for servicing and adjusting.

KITCHEN CABINETS

An additional line of condensed, simplified kitchen cabinets, designed and priced to fit the limitations

of low-cost Victory housing, has been announced by Kitchen Maid Corp., Andrews, Ind. Identical in principle to the firm's higher-priced lines, all of the new units are standardized, may be used singly, or in group assemblages in any size or shape of kitchen. The new cabinets use a minimum of critical defense materials.

Construction features include warp-proof doors, hardwood frames. All units are ready for immediate installation and immediate use, due to a special factory-sealed finish. If desired, the units can be supplied in prime coat only.

FAN-TYPE AIR HEATER

For use in offices and stores is a new fan-type, all electric unit heater from Westinghouse Electric & Mfg. Co., Pittsburgh, Pa. The units, available in 5 and 7½-kw sizes, 230 volts, 50/60 cycles, have an output of 17,060 and 25,590 Btu respectively. The heater is cylindrical in shape, with a bracket designed for vertical adjustment. Mounting can be made on the wall, ceiling, and floor. Overall dimensions are approximately 20 inches high, 16 inches wide, 15 inches deep.

To prevent overheating, a temperature limit switch is connected in the control circuit of the contactor.

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To provide a simple method of applying a blanket of fire-smothering foam to burning oil surfaces, the American-LaFrance-Foamite Corp., Elmira, N. Y., has designed the Evertite chamber for installation on modern storage tanks of the pressure type. The chamber is of the expansion type design, with increasing cross-sectional area to insure intimate mixing of chemical solutions, efficient formation of foam, and low velocity delivery. A small hole in the bottom plate allows air to circulate within the chamber, retards corrosion, provides drainage, and acts as a tell-tale upon foam discharge.

An inspection cap can be removed, and a sealing diaphragm inspected, without releasing tank pressure. The vapor-proof glass diaphragm is so installed as to prevent vapors in oil storage tanks from entering the body of the mixing chamber, from entering and condensing in chemical solution lines, or from escaping to the air when the bottom or top plate, or inspection cap, are removed.

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No Hinges—
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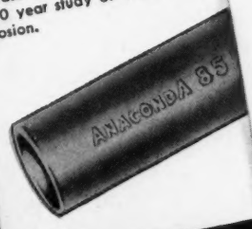

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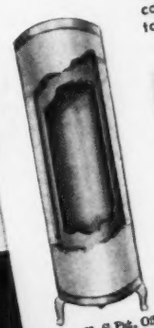

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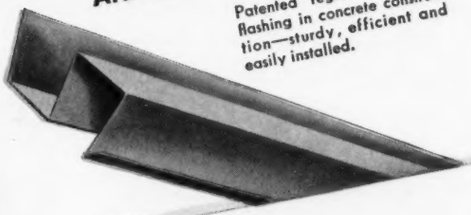

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The belief of PENCIL POINTS that the architectural man can be of service in the Victory Program—whether he has his name on an architectural contract or simply agrees to devote his skill and professional ability to the salaried job before him—is being proved by early results in Washington. The sustaining effort that Willis A. Vogel is leading there, as Technical Personnel Adviser on behalf of the men of the profession, is finding acceptance with the potential employers—agency heads, personnel managers, other advisers in the Victory Program, and authorities of the continuing bureaus. The Editors of PENCIL POINTS are reassured by the first successes of the PENCIL POINTS' effort on behalf of the profession. For the architectural man, Mr. Vogel is making friends in high places. The architectural man, himself, appreciates the effort and has been quick to tell us so. Below are excerpts from some of the hundreds of letters received.

FROM THE EAST

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"Your proposal to crusade for our recognition comes like a warm south wind of hope. May it prosper and bear merited fruit."

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W. T. McCARTHY
Brooklyn, N. Y.

"Just a word of commendation for what you are trying to do for the Architects. If there is a forgotten man, he is it."

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White Plains, N. Y

"Unquestionably, this latest effort on your part will help to build up a deeper spirit of friendliness and understanding between the profession and your fine publication. In fact, I trust that in time the Architectural group as a whole will officially acknowledge PENCIL POINTS as its mouthpiece in matters of National interest."

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" 'Hooray' for PENCIL POINTS. Keep up your good work."

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CARL E. SEGERBERG
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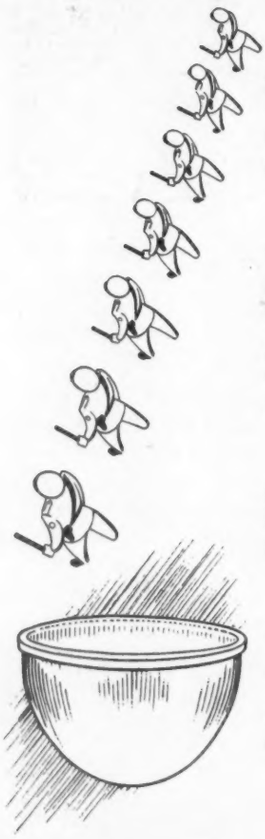

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FROM THE SOUTH

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"It is very heartening to learn that someone has a definite idea about the use of Architeets in the Victory Program of our great country."

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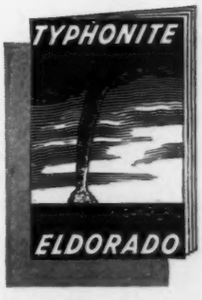

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HERE, THERE, THIS & THAT

The Department of Architecture at Carnegie Institute of Technology, Pittsburgh, Pa., is fortunate in having the facilities of space and shop instruction to afford students first-hand experience in the realistic presentation of one of their own design efforts. The two structures shown here (above, "Vacation House to cost less than $1,000"; below, "Recreation Center for a Girls' Camp") were designed, built, and landscaped by sophomore architects, and decorated and furnished by students in the Department of Interior Decoration. Students are given the project as a competition in the first half of the sophomore year, and the actual building is undertaken in the second half of the year. Architects lay brick, erect wood framing, and prepare and install doors, windows, and interior finish. Students of decoration collaborate in designing furniture and decoration. After the structure is painted the architects spread soil, plant grass seed, and distribute plants. This project is opened to the public for an evening late in the spring term, after which everything is dismantled. What material is salvageable is stored away for future use. Photographs are by Russell P. Hay, Inc.

BOSTON NOTES

Architectural registration began in February with the distribution of application blanks to all known Massachusetts practitioners, great and small. Governor Saltonstall's selection of the five-man board had a reasonably statewide cast, chairmaned by *John T. Whitmore,* secretaried by *Robert A. Gaston, Jr.,* and staffed by *Henry J. Tessier, Israel T. Almy,* and *C. F. Springall.* With the application blank (on its return trip) goes a bona fide check for $25 and one's photographic likeness. And remember to dispatch these items before January 1, 1943, because Grandpa and the Old Year lose their preferred status simultaneously. After that only the bright young men who know their thermo-couples and Aufgepoople's Theory of the Elastic Modulus may feel very cocky about gaining certificatory stature. In passing, if any Bostonian lacks a suitable photograph of himself let him stop in at one of the Scollay Square shooting galleries enroute to the Old Howard. The snaps will be developed and printed while Hinda Wassau is doing her stuff; will be ready at curtain-fall. They cost little, and if you detect a dissipated look in them it's probably your own fault.

There has been some harp-twanging on familiar tunes concerning interrelated architectural groups—employer, employe—and the hope for greater common effort. Gist of a recent deliverance, from one who ought to know, likened the suspicion of ulterior motives and fear of losing autonomy to world situations where realism bucks emotional group antipathy. It can be shown that, without abrogating group identity, all architectural organizations may be formed into an alliance to secure their threatened profession's right of existence. Probably nobody will deny the urgency, or that it is national rather than sectional, or that it cannot be fought at a distance. This belief and principle will be given a trial if the independent Massachusetts State Association of Architects asks its members how they would like to affiliate with the A.I.A. for defensive purposes. It's ten to one they'd be a welcome addition to the power rating of the A.I.A.'s Washington task force, for the Institute has undoubtedly observed that there is more strength through numbers than joy, pedigrees, or pure reason.

The Boston Society of Architects, and the State Association, held elections in January, with *William Roger Greeley* following *William Emerson* as president of the first named organization. In MSAA, President *John T. Whitmore* and Treasurer *Samuel T. Dubitsky* continue their second year of service, the new elections concerning these men and offices—*Charles R. Hoyle,* Vice President; *Wm. Bradford Sprout, Jr.,* Secretary; Directors *Clifford C. Allbright, Israel T. Almy, George H. Burr, Robert Allen Cook, Bernhard Dirks, Godfrey K. Downer, S. S. Eisenberg, Arthur Englund, Walter H. Gaffney, S. Tyson Haldeman, J. Raymond Hampson, William F. Sawyer, Harry M. Seabury,* and *Richard J. Shaw.* At the annual meeting *"Joe" Leland* voiced encouraging hopes for our war effort in the building industry, based on his intimate knowledge of the national scene. Later, at the dinner, *Willard F. deLue,* Night Managing Editor of the Boston *Globe,* talked

(Continued on page 58)

Panels for the prefabricated homes in Halifax were constructed at the mill and trucked to the site of the development.

USG News Facts

PREFABRICATED HOMES EDITION
April, 1942 Vol. 2 No. 2
Published by
UNITED STATES GYPSUM COMPANY
300 WEST ADAMS STREET, CHICAGO, ILLINOIS

Canadian WAR HOUSING

Early in 1941, Wartime Housing Limited was organized. Supplied with funds by the Canadian Government, Wartime Housing proceeded to let contracts for large group housing projects to provide living accommodations for workers in rapidly expanding war industries.

Architect W. L. Somerville wanted a workman's small home—comfortable, sturdily built, insulated, and fire-resistant—yet low in cost. Speed of construction suggested the importance of using power saws, planers and other tools. Large assembly units for the floors, walls, and roofs would not only be quickly erected, but would also provide a maximum of salvage value. In the method adopted after careful study, these sectional houses come to the building site in floor, wall, ceiling and roof panels—assembled at the mill in downtown Halifax. Carloads of materials pour into the mill from railroad cars, and truckloads of house units rumble down the main street to hasten Canada's war effort. The houses are rolling into place almost 10 a day.

BUILDING SUPPLY NEWS EDITOR SEES PREFABRICATION GROWTH

In the current issue the editor of *Building Supply News*, a leading dealer publication, points out that if it were not for the war, prefabrication might be 20 years longer in coming.

Perhaps one of the principal reasons that the economies of power tool construction had not been realized has been the absence of pressure together with a sufficiently large volume for testing methods. As the BSN editor points out, "Huge government defense housing orders will give prefabrication a chance to make mistakes and correct them and to work out more practicable ideas."

The work of the American Standards Committee on Modular Planning will receive a tremendous impetus by any developments in prefabrication.

Halifax prefabricated houses are started on cedar post foundations.

The floor panels are placed over the foundation and bolted together, providing a finished floor.

FOUNDATIONS

Cedar posts are driven below frost to form the foundations for the house. On these posts are placed beams to supply bearing for the ends of the floor panels. An intermediate line of support provides two bays of 12′-0″ span.

FLOOR PANELS

First come the floor units or panels 4′-0″x12′-0″, framed with 2″x8″ joists with cross supports of 2″x4″s. They are covered with a moisture-resisting board over which tongue and groove fir flooring is nailed in place. Under this firm floor, Red Top Paper-Backed Insulating Wool is tucked snugly between 2″x4″s and stitched in with a Bostitch staple gun. With Red Top Insulating Wool between ground and floor, the house

Dividing partitions assembled in sections at the mill are then put in place ready for Sheetrock Wallboard.

After installation of electric wiring and plumbing, Red Top Insulating Wool is tacked snugly in place, using a Bostitch stapler.

Exterior wall panels prefabricated at the mill, including windows and doors, are then bolted into position to form the outside walls.

The ceiling panel with Sheetrock attached is placed in its position on top of the walls and dividing partitions.

will be warm and comfortable, free from draughts or moisture in the coldest weather.

The floor panels are clamped together over cedar post foundations and then bolted from underneath and strapped to the posts. This provides a firm platform 24′-0″x24′-0″, and the house floor is then ready for side wall panels.

WALL PANELS

The side wall panels are framed in 2″x4″s with windows already in place. The outside is covered with a weather-proofed plywood with overlapping edges to cover panel joints. This exterior is painted with a special synthetic resin paint in various colors after the house has been completely assembled. The inside of these wall panels is left unfinished to provide for wiring on the job. The wall panels are bolted upright and are also tied into the dividing partitions which frame the first floor—ready for ceilings.

CEILING PANELS

Now come the ceiling panels, 4′-0″x12′-0″, and framed in 2″x4″s (with double depth frames used for 2-story houses to carry floor loads). Mr. Lang, Superintendent, saved several hours in construction time by attaching ⅜″x4′x12′ fire-proof Recessed-Edge Sheetrock wallboard to ceiling panels at the factory. This provides a clear sweep of ceiling over the entire area—supported by side wall panels and dividing partitions. No cutting, fitting or overhead nailing. And what a good-looking, smooth ceiling in every room!

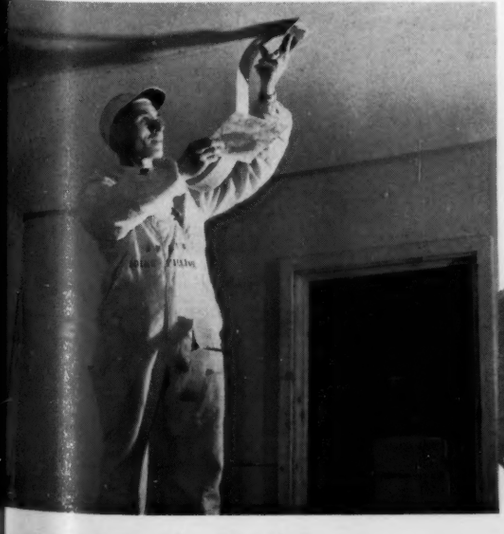
ROOF PANELS

Roof panels are next—covered with plywood sheathing and bolted in place from the inside. The roof covering comprises 210-lb. square tab asphalt shingles in beautiful colors —red, green, blue-black, etc.—similar to the United States Gypsum Company's double-coverage roofs. Here is fire resistance combined with beauty at low cost, and plenty of wear against the rugged northeast storms that sweep the coast.

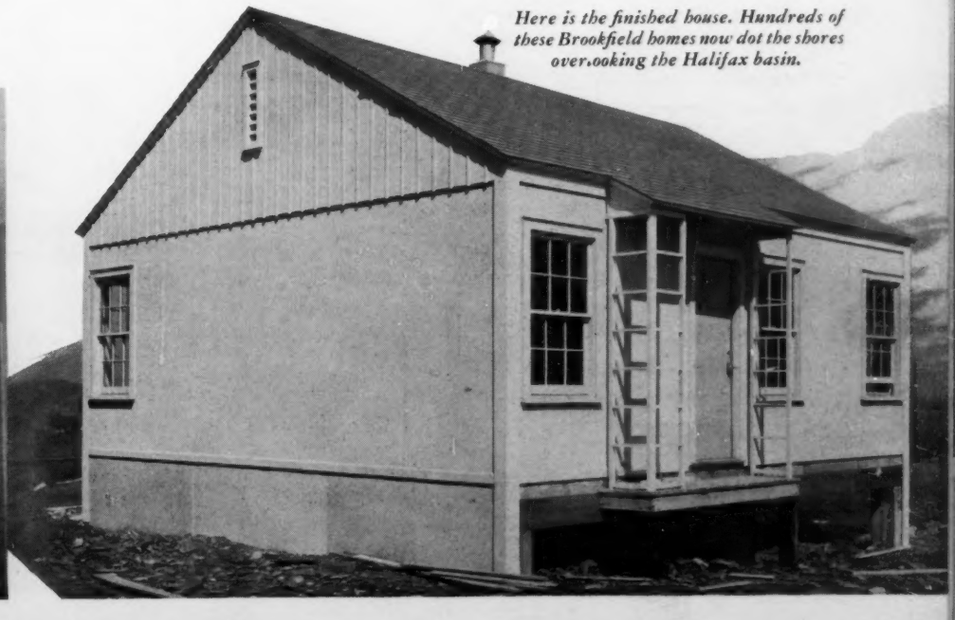
INTERIOR PARTITIONS

Most important is the finished interior of this little home. The ceilings are in place with Recessed-Edge Sheetrock

Joint Applicator Drew conceals the ceiling joints of Recessed-Edge Sheetrock with patented Perf-A-Tape to complete a smooth-finished ceiling.

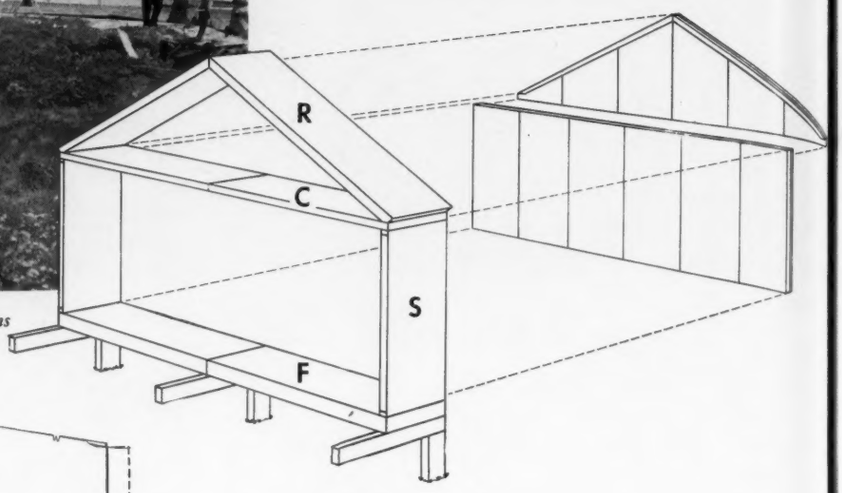


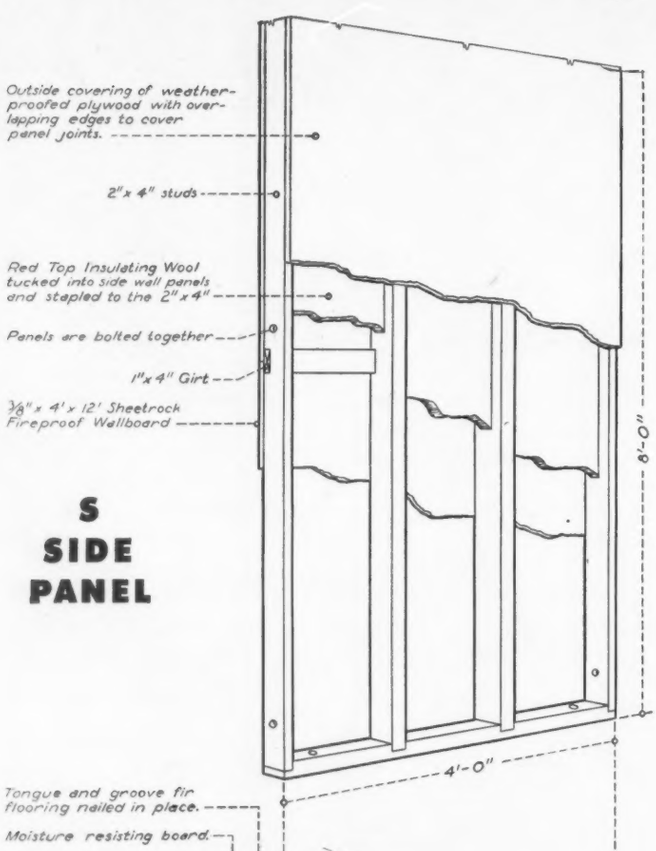
Here is the finished house. Hundreds of these Brookfield homes now dot the shores overlooking the Halifax basin.



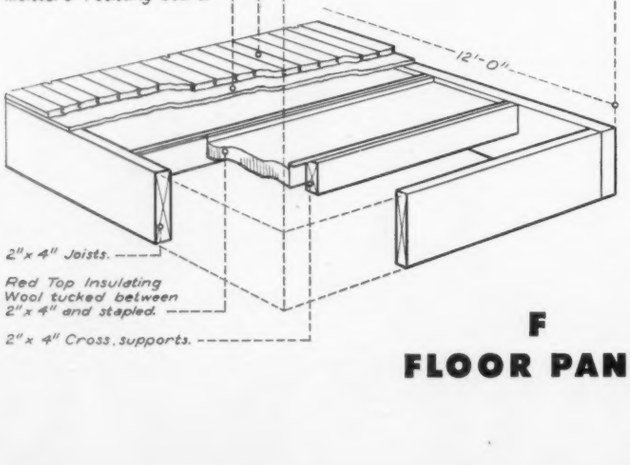
After ceiling panels are in place, gable ends and roof sections are bolted together ready for colorful asphalt shingles.

DIAGRAM OF ASSEMBLY

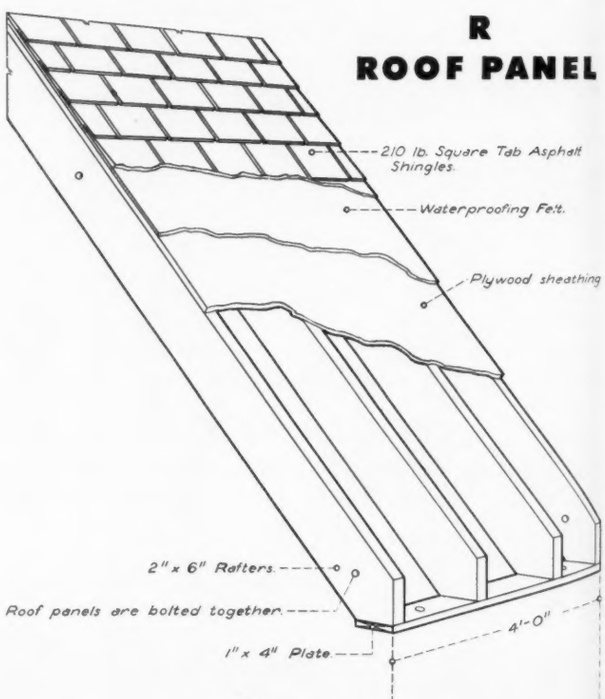



Outside covering of weather-proofed plywood with over-lapping edges to cover panel joints.
2" x 4" studs
Red Top Insulating Wool tucked into side wall panels and stapled to the 2" x 4"
Panels are bolted together
1" x 4" Girt
3/8" x 4' x 12' Sheetrock Fireproof Wallboard
8'-0"
4'-0"

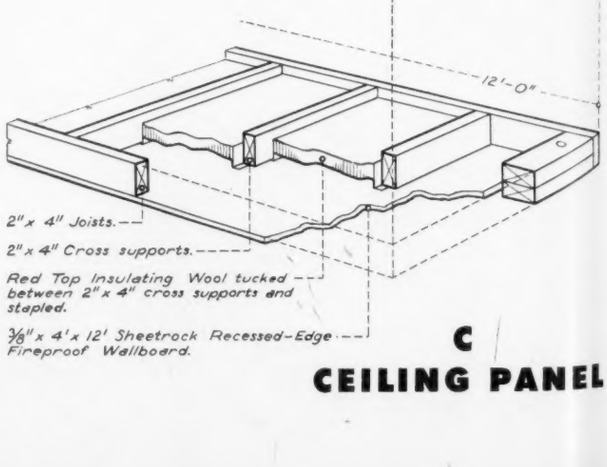
S SIDE PANEL


Tongue and groove fir flooring nailed in place.
Moisture resisting board.
12'-0"
2" x 4" Joists.
Red Top Insulating Wool tucked between 2" x 4" and stapled.
2" x 4" Cross supports.

F FLOOR PANEL



R ROOF PANEL


12'-0"
2" x 4" Joists.
2" x 4" Cross supports.
Red Top Insulating Wool tucked between 2" x 4" cross supports and stapled.
3/8" x 4' x 12' Sheetrock Recessed-Edge Fireproof Wallboard.

C CEILING PANEL

wallboard, the outside wall frames are now wired, and the interior partition frames divide off living room, kitchen and two bedrooms. Here are the next operations:

Red Top Insulating Wool with moisture-resistant paper-backing is tucked into the side wall panels and stapled to the 2″x4″s—also in the ceiling panels over the Sheetrock wallboard. Now the house is completely wrapped in a blanket of Red Top insulation—floors, walls and ceiling. Here is comfort and important fuel savings, not to mention the reduced cost of the heating unit.

Next, large panels of fireproof Sheetrock wallboard, ⅜″x4′x12′, are slid into the living room which is 12′-0″x15′-0″. Holding the sheet up in horizontal position to the wall, window and door openings are marked and cut out by sawing down the scoring across a straight edge. Presto! one half the wall is nailed in place. The same for the upper half and, except for a molding strip over the horizontal joint, we have a seamless wall—no joints to treat—no breaks over windows or doors. And there is no waste! Cut-outs for doors and windows are used in closets.

In the next room we find the 12-foot length must be trimmed 2″ off the end. A sharp knife or linoleum cutter drawn along a straight edge and off comes the narrow strip. Such close trim is made possible by new reinforced core fibers interlacing with the gypsum in Sheetrock wallboard for added strength.

INTERIOR FINISH

Dividing partitions are then covered both sides with Sheetrock applied horizontally and forming rooms whose side walls are ready for decoration.

For smooth, jointless ceilings, Mr. Drew, joint treatment applicator, with helpers, closes up the panel joints of Recessed-Edge Sheetrock with patented Perf-A-Tape, sold exclusively with Sheetrock. The perforated tape is cut to desired length and after an application of the Perf-A-Tape Cement, the tape is set in position by drawing the flexible 4″ Sheetrock knife over the seam. Later, Mr. Drew comes back and applies a finish coat of cement. Nails which do not occur at joints are driven home with a hammer so that nail head is slightly below surface, and then spotted with cement. This leaves a smooth, unbroken surface ready for the painter.

Now we have smooth walls and ceilings of Sheetrock. Not a joint is visible anywhere . . . because even the corners are treated with Perf-A-Tape and cement. Indeed, it is a cozy, sanitary and fireproof interior with the lasting quality against the wear and tear that houses get when occupied by growing families.

Removing old style porch from USG Research Remodeling House. Eugene Yoita, Chicago, Architect.

IMPORTANT REMODELING DATA TO BE REVEALED BY USG PROJECT

PARK RIDGE, ILLINOIS—The "USG Remodel Research House" project of the U. S. Gypsum Company will bring before the public the value of modernization when the building of a new home is not possible—as well as to show the advisability of retaining an architect to design and supervise remodeling.

A later issue of News-Facts is planned to present the new information developed by this project on the subjects of fire protection and fire insurance ratings, insulation, heating and ventilating, illumination, electrical and gas service, household utilities, family health and safety, home comfort and efficiency, interior design, decoration and furnishing.

The tearing out that has been required by the re-planning of the house is now completed. The installation of the new work has begun. Complete photographic records and cost records, room by room, are being meticulously kept. This information will be available to all those architects who are shifting from new building to modernization because of priorities.

Architect Eugene Voita is supervising the statistical records of labor and materials involved in each phase of the modernization. News-Facts will present the quantities of materials and man-hour units of labor so that similar work throughout the country can be accurately estimated on the basis of prevailing local material prices and wage scales.

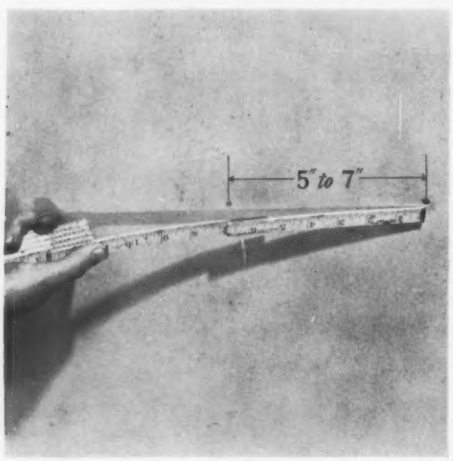
The home will be modernized to meet the needs of a typical middle income American family of four, chosen on the basis of United States Department of Labor statistics and other studies on urban housing.

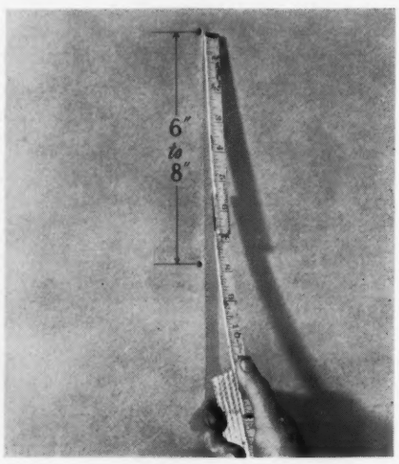
Save Nails

WITH SHEETROCK AND GYPLAP

Make a big saving in the nails you use by sheathing with Gyplap, the low-cost fireproof sheathing. Under brick veneer and asbestos cement siding, only seven nails per stud per board are required. New USG Nailex fastener eliminates need for furring strips.

Underwood siding and stucco, only 4 nails per stud per board are required. Yet you get a stronger wall—a wall that is easy to handle; that goes up faster; that is readily available from U S G dealers throughout the country.





With Sheetrock interiors, nails may be spaced from 5 to 7 inches apart on ceilings—should not be closer than ⅜″ to edge of board. On walls, space nails 6 to 8″ apart. By using Gyplap on outside walls and Sheetrock inside, you cut nail requirements to the minimum.

New!

95-PAGE BOOK "HOW TO MODERNIZE YOUR HOME"

Here is one of the most thorough studies of remodeling ever published—crammed with ideas and suggestions to stimulate an interest among home owners in repair, remodeling and modernization.

Special attention of readers is called to the architect and the service he renders. "You want your remodeling properly planned and supervised—*that's where the architect fits in*," the book states.

"Tell the architect your problem and what you want to spend. He will plan the job, get price estimates, let contracts, pay bills, supervise construction, and check materials.

"Remember, a good architect produces a better result and saves time, trouble and expense," the book explains.

Write today for your copy, and put it to work as a reference and idea book. Just send 10 cents to cover mailing costs.

UNITED STATES GYPSUM

This famous trademark identifies products of United States Gypsum Company —where for 40 years research has developed better, safer building materials.

ACOUSTIC MATERIALS • INTERIOR PLASTER AND STUCCO • MASON'S AND FINISHING LIME • PAINT • PLASTER BASES • ROOFS, FLOORS AND PARTITIONS
SHEATHING • SHEETROCK • SHINGLES • SIDING • THERMAL INSULATION • TRUSSTEEL STUDS • USG PLASTERING SYSTEMS • WEATHERWOOD

I make the BLUEPRINTS *for* VICTORY

- Every implement in the arsenal of Democracy begins with me.
- Craftsmen by tens of thousands depend on me to translate their ideas into bombers, fighters, ordnance, trucks, tanks, torpedoes, cruisers, carriers and battle wagons.
- I make the blueprints for the production line—in fact, I design the production line itself.
- And when Victory is won, when the United Nations crush the hordes seeking to destroy civilization, I will return to the pursuits of peace and help build a better world.
- Who am I? Why, just a drawing pencil!

True, WINNER Techno-TONE costs a few pennies more than ordinary drawing pencils, but who quibbles about trifles when vital projects are at stake! Architects, Engineers, Artists, Designers and Draftsmen prefer WINNER Techno-TONE because it guarantees freedom from Scratching, Smudging, Flaking and Gritty Hard Spots. We'll gladly send you a sample.

17 scientifically graded tones — 6B to 9H. Polished rich green. Packed in metal box.
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Companion Pencil — WINNER Thin Colored Checking — Superb colors and strength. Choicest for all prints: 2381 Red; 2382 Blue; 2383 Green; 2385D Yellow; 2437D Orange. 10¢ each. $1.00 dozen. Would you like a sample?

PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen, and Specification Writers

The publications mentioned here are 8½ x 11 unless otherwise noted, and will be sent free upon request to PENCIL POINTS *readers by the firms issuing them. When writing, please mention* PENCIL POINTS.

INSULATION – Reyn-O-Cell cellular fibre cotton insulation for the home—what it is, its construction, how it is applied—is described in a 3½ x 6¼ pamphlet from Reynolds Metals Co., Building Products Division, Federal Reserve Bank Bldg., Richmond, Va.

HEATING UNITS—Three 4-page descriptive catalogs have been issued by Fitzgibbons Boiler Co., Inc., 101 Park Ave., New York, on its various defense housing heating units. The catalogs give construction and operating features on the 80 FWA model, a coal burning warm air furnace; 400 Series steel boiler in either steam or hot water for oil, gas, stoker, or coal hand-firing; and the three models of its Directair direct-fired air conditioner for residential heating.

CONTROL DEVICES—A 56-page, two-color catalog, No. 8301, from Brown Instrument Co., Wayne & Roberts Aves., Philadelphia, Pa., presents a comprehensive source of information on automatic control devices for industrial processes. Photographs illustrate the various controls and safeguards. Complete specifications and informative details are given for all types.

AIR CONDITIONING – Vol. 1, No. 1, of *Aspiration,* new house organ of Anemostat Corp. of America, 10 E. 39th St., New York, is a 4-page folder, issued primarily for the firm's sales force. The issue contains a description of various instruments used in the air conditioning field, a brief history of the firm, and a biography of the firm's New York representative.

HISTORICAL—Effective piece of institutional advertising is the historical sketch of Devoe & Raynolds Co. Inc., 44th St. and First Ave., New York, entitled "The Colorful Years." The history of this paint manufacturing company (founded in 1754) has been reproduced in a 64-page booklet, 7 x 10, illustrated with photographs and reproductions of historical documents from the company's files.

ROAD BUILDING—A 9 x 12 booklet, 40 pages, "Better Roads Ahead", from the Hercules Powder Co. Inc., Naval Stores Department, Wilmington, Del., contains a number of articles from leading technical journals telling the story of Vinsol-treated cement, which imparts to concrete resistance to scaling and disintegration.

PLUMBING FIXTURES—A condensed catalog, 24-pages, "Styled Plumbing", shows a representative collection of Eljer plumbing fixtures of vitreous china, enameled cast iron, and brass for homes and multiple housing projects, commercial and institutional buildings, may be had from Eljer Co., Ford City, Pa.

Also published by the same firm: 8½ x 6 booklet, 24 pages, showing in actual color the various bathroom fixture combinations made by the firm.

GLASS BLOCKS—Plate Nos. 2 and 3 (Kitchen and bathroom respectively) showing the use of its Insulux glass block have been issued by Owens-Illinois Glass Co., Toledo, Ohio. Each single-sheet plate contains installation and construction information.

PLUMBING DRAINAGE MANUAL – A 240-page pocket size manual, including 191 pages of detail drawings in blueprint form and 24 pages of typical specifications covering drainage products for all types of buildings, may be had from Josam Mfg. Co., 303 Empire Bldg., Cleveland, Ohio.

AIR CONDITIONING EQUIPMENT – General Electric Co., 5 Lawrence St., Bloomfield, N. J., has published a catalog on central plant air conditioning and refrigeration equipment. The catalog is arranged in five sections – water cooled condensing units, evaporative condensers, air conditioners, coils, general—has charts and tables, specifications, other engineering data.

(*Continued on page 52*)

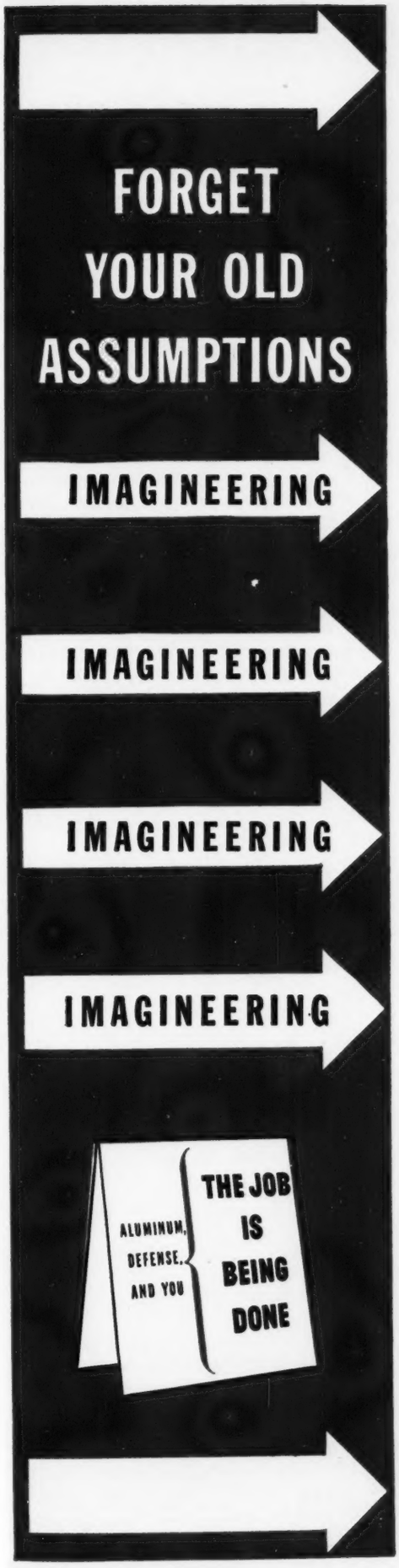
Write now for this helpful folder.

SERVICE SHEET R-5 IS A COMPLETE DATA SOURCE FOR A NEW IMPROVED DESIGN OF FIREPROOF DOOR, THE FYRGARD DOOR.

THIS SHEET Gives space requirements, large scale construction details, specifications and Underwriter requirements.

Have you received your set of RICHMOND Don Graf Sheets or our latest catalog?

THE RICHMOND FIREPROOF DOOR COMPANY
NORTHWEST FOURTH STREET RICHMOND, INDIANA



★

IN THESE DAYS an advertisement is no place either for hosannas or sermons about production. Every man knows how well he is doing the job that is before him. Deeds, not words, are the measure.

BUT WORDS CAN BECKON beyond the realms of immediate duty.

IMAGINEERING is such a word. We coined it to make the needs of the future a reality, here and now. It is a way of describing what a man can do about the day when. . .

HOW DO YOU DO IT? You let your imagination soar and then engineer it down to earth. You think about the things you used to make, and decide that if you don't find out some way to make them immeasurably better you may never be asked by your customers to make them again.

YOU FORGET YOUR OLD ASSUMPTIONS. For instance, you may be one who used to assume that aluminum was too expensive. Even if you were right then (and you may not have been) the price trend of aluminum knocks those assumptions into a cocked hat.

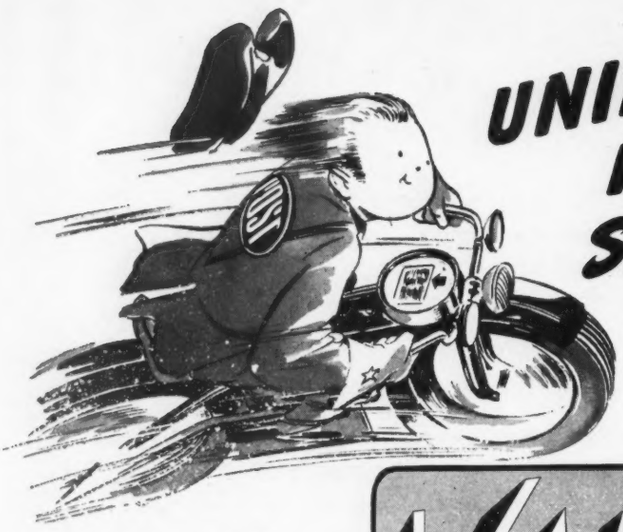
WERE YOU ONE who used to assume that structures behaved exactly the way the theory said? Have you looked into the new answers the mammoth testing machine in the Aluminum Research Laboratory has found for that one?

DID YOUR OLD PRODUCT GROW like Topsy? More than one designer is Imagineering with this point of view: My product was in a groove. I couldn't get it out, because I didn't dare get too far away from last year's model. Now's my chance to start from scratch, and let tradition be hanged.

THAT IS THE KIND OF THINKING that will make jobs in the future. It is the kind we can help with: help with ideas and with know-how. Will you invite us?

Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM



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FOR GREATER TOUGHNESS

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FOR AMMONIA VAPOR PRINTS
POST

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● You don't have to change the speed of developing and printing equipment to conform to variance in speed *in different* rolls of paper. Not with Vapo-paper because every roll of Vapo-paper prints at the same identical speed and it's uniform in color as well. That uniformity is important today when every print must be *right.* But, that's not all. Vapo-paper will stand up under hard usage, stand up in your files too, because its rag content makes it tougher. With Vapo-paper's exclusive emulsion all the lines come up keen, sharp and trim, the solids are *solid* in Post red or true blue. Two speeds—regular and fast. For uniform speed and uniform color, for Prints with brilliance, sharpness and long life — order Vapo-paper for a free trial today.

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At our expense, prove to yourself the superiority of Vapo-paper. 'Phone your nearest POST Dealer for your free trial supply of the new, improved Vapo-paper. Or send for your supply direct to The Frederick Post Company, Box 803, Chicago, Illinois. In making your request please include the following information. Are you equipped to produce dry developed prints? Would you prefer regular or fast, blue line or red line Vapo-paper?

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• KINDRED SENSITIZED PRODUCTS •
POST

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(*Continued from page 50*)

USES OF GLASS—Shortage of metals, plastics, and other materials as a result of the war program has led to the search for products that might readily prove a substitute or alternate for critical materials. To report what part glass might play in this transition, Pittsburgh Plate Glass Co., Pittsburgh, Pa., has issued a 30-page booklet enumerating some of its products and giving a short description of each, together with availability information, properties, and a suggested list of uses.

PROTECTIVE LIGHTING — A 3 x 6 folder, No. 101, 8 pages, from Goodrich Electric Co., 4600 Belle Plaine Ave., Chicago, Ill., illustrates the various styles of porcelain enameled floodlights for plant protection available from the firm. Discussed is the Elipso Standlite fixture, designed for high intensity and sharply-defined lighting around property lines without illuminating buildings and grounds.

HEAT DIFFUSERS—A new series of specification information sheets on its heat diffusers may be had from Carrier Corp., Syracuse, N. Y. Four single sheets give descriptions, roughing-in dimensions, specifications on units for heating and ventilating of large enclosures.

GAS-OIL INTERCEPTOR — A 4-page folder (A.I.A. File No. 29-C-4) from Josam Mfg. Co., Empire Bldg., Cleveland, Ohio, describes the firm's Series G automatic ejecting-type gas-oil interceptor which intercepts and discharges oil, gasoline, etc., from drainage lines.

LIGHTING—Some of the ways in which better light can play a most important role in the Victory program is outlined in a 12-page, 5 x 7 booklet, "How Light Can Help", available from General Electric Co., Lamp Department, Nela Park, Cleveland, Ohio.

TERRAZZO AND MOSAIC—An informational kit (A.I.A. File No. 23-E) containing data and specifications on terrazzo and mosaics may be had from National Terrazzo & Mosaic Association, Inc., 1420 New York Ave., N.W., Washington, D. C. The seven sheets are in a folder for convenient filing.

(*Continued on page 54*)

EVERY SQUARE FOOT OF

KOOLSHADE* SAVES MANY TIMES ITS EQUIVALENT IN CRITICAL MATERIALS AND AIR CONDITIONING COSTS!

...in fact, 100 sq. ft. of KOOLSHADE Sun Screen saves approximately 1 TON of cooling capacity requiring 200 to 400 lbs. of equipment!

KOOLSHADE SUN SCREEN *is a fine-mesh bronze fabric made like a tiny Venetian blind. Keeps out sun heat but lets in plenty of glareless light!*

● It takes less equipment...and costs less money...to keep heat out than to cool it. That's why KOOLSHADE Sun Screen is being made a part of more and more Air Conditioning jobs every day—in essential plants, offices and Government Buildings.

Engineers calculate that direct sun heat through windows is ¼ to ½ of the total load on cooling equipment. (*See chart of typical figures at right.*) KOOLSHADE stops 80% to 85% of that sun heat outside...enables smaller cooling units to produce identical results with sizeable NET SAVINGS in both original and operating costs, in power consumption and in critical materials.

Where Air Conditioning is not now planned (or cannot be obtained) KOOLSHADE alone will keep buildings many degrees cooler, increasing workers' efficiency and boosting production. Then, when mechanical cooling is added later, the same KOOLSHADE will be there to insure greatest cooling efficiency.

Ingersoll

KOOLSHADE*

SUN SCREEN

*Registered Trade Mark, Property of Ingersoll Steel & Disc Div., Borg-Warner Corp.

Ingersoll Steel & Disc Division,
Borg-Warner Corporation,
Dept. K4, 310 S. Michigan Avenue,
Chicago, Illinois.

Please send (without charge) your Sun Heat Demonstration Kit and also complete KOOLSHADE Sun Screen literature.

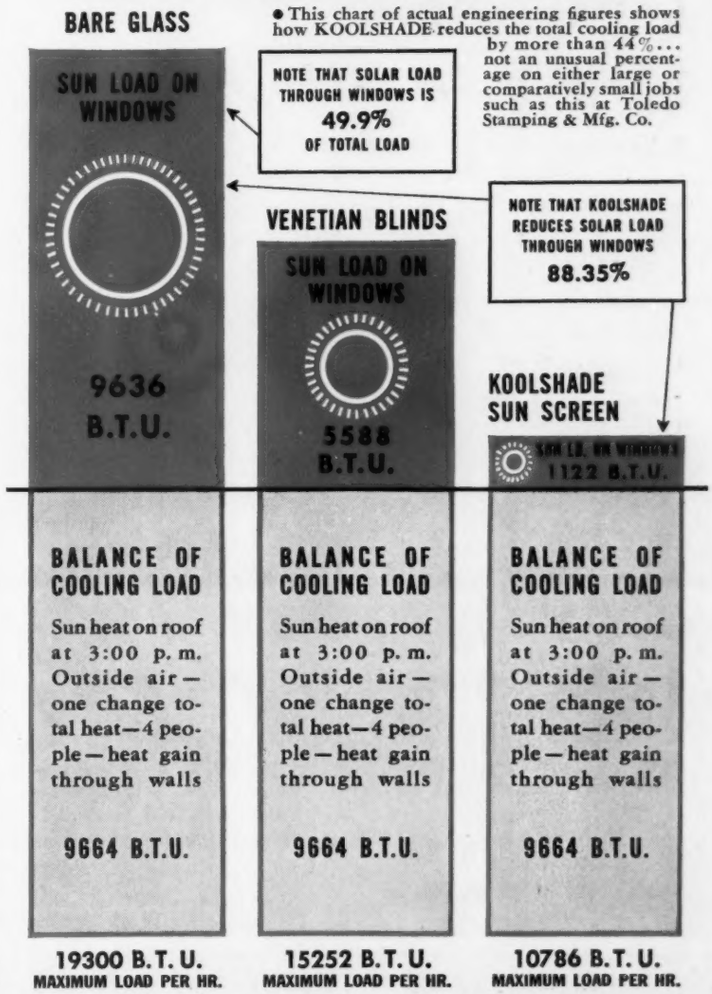
Name.....*Firm*.....

Address.....

City.....*State*.....

HERE'S HOW KOOLSHADE CUTS THE COOLING LOAD AT TOLEDO STAMPING & MFG. CO.

● This chart of actual engineering figures shows how KOOLSHADE reduces the total cooling load by more than 44%... not an unusual percentage on either large or comparatively small jobs such as this at Toledo Stamping & Mfg. Co.


BARE GLASS
SUN LOAD ON WINDOWS
9636 B.T.U.
NOTE THAT SOLAR LOAD THROUGH WINDOWS IS 49.9% OF TOTAL LOAD
VENETIAN BLINDS
SUN LOAD ON WINDOWS
5588 B.T.U.
NOTE THAT KOOLSHADE REDUCES SOLAR LOAD THROUGH WINDOWS 88.35%
KOOLSHADE SUN SCREEN
1122 B.T.U.
BALANCE OF COOLING LOAD
Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls
9664 B.T.U.
BALANCE OF COOLING LOAD
Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls
9664 B.T.U.
BALANCE OF COOLING LOAD
Sun heat on roof at 3:00 p. m. Outside air — one change total heat—4 people — heat gain through walls
9664 B.T.U.

19300 B.T.U. MAXIMUM LOAD PER HR. | **15252 B.T.U.** MAXIMUM LOAD PER HR. | **10786 B.T.U.** MAXIMUM LOAD PER HR.

● KOOLSHADE savings are proportionate to window areas involved and savings up to 200 TONS OF COOLING CAPACITY have been obtained on actual installations. What this means in costs and materials saved is obvious when it is noted that each ton of cooling capacity takes 200 to 400 lbs. of equipment.

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 52)

LUMBER—A 32-page, 8½ x 11¾ catalog from Timber Engineering Co., 1337 Connecticut Ave. N.W., Washington, D. C., shows pictorially the part that forest products industries have played in the country's preparations for the current war.

ROOF VENTILATORS—A 34-page loose-leaf catalog (A.I.A. File No. 12-K) bound in a heavy paper cover, describes the line of roof ventilators made by The Burt Mfg. Co., Akron, Ohio. Diagrammatic and schematic drawings show mounting, flashing, and construction details, while tables show ventilator capacities.

Also available: 3½ x 6¼, 4-page folder giving fabrication details and description of the firm's ventilators made from asbestos-protected steel.

The Barcol OVERdoor

A GOOD INVESTMENT FOR WAR PRODUCTION PLANTS...

GET enduring, efficient door service and keep maintenance at a minimum by using Barcol OVERdoors with Barcol Electric Door Operators. Barcol hinged-roller construction is an outstanding feature of this free-running, non-sticking door that closes tightly yet opens easily. Thousands of industrial installations testify to the success of the Barcol OVERdoor for industrial service. Ask your Barcol representative for detailed information.

See our Catalog in SWEET'S (Architectural and Industrial)

BARCOL **BARBER-COLMAN COMPANY**

100 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

PAINT SELECTOR — A handy means of selecting the best paint, without detailed technical study of properties of all finishes that might be suitable for a given application, is provided in the Valdura Paint Selector, issued by American-Marietta Co., 43 E. Ohio St., Chicago, Ill. The Selector folds to letterhead size, contains information on properties of and all application data necessary to choose from 43 paint, enamel, and varnish products.

ROTARY SWITCHES — Rotary type instrument, control, transfer, and auxiliary switches are described and illustrated, and various combinations listed, in a new 16-page Catalog No. 7140 from Roller-Smith Co., Bethlehem, Pa. Diagrams of connections and switch developments are shown for each switch listed.

BATHROOM EQUIPMENT — A 40-page catalog, "Glorifying the American Bathroom", illustrates the complete line of bathroom cabinets, accessories, mirrors, and electric heaters made by Miami Cabinet Division, The Philip Carey Mfg. Co., Middletown, Ohio. Complete layouts are suggested for guest bedrooms, master bedrooms, small family and large family bathrooms, together with a selection of equipment for low-cost homes.

MARINE PLUMBING — Catalog No. 42, from J. A. Zurn Mfg. Co., Erie, Pa., presents the firm's line of marine drainage products, other helpful information for buyers of such products for naval, cargo vessels, passenger, and pleasure crafts.

FLOOR MAINTENANCE — A 4-page folder (A.I.A. File No. 25-B-1) from G. H. Tennant Co., 2530 N. 2nd St., Minneapolis, Minn., describes the Tennant system of care for wood, asphalt tile, linoleum, terrazzo, marble, and concrete floors.

UNIT HEATERS—The Electric Air Heater Co., Mishawaka, Ind., has a 4-page folder (A.I.A. File No. 31-K-3) on its Electromode model commercial and industrial electric unit heater. Specifications, installation diagrams, and capacity ratings are included.

Also from the same firm: Bulletin No. 15, a 2-page sheet, on the Electromode portable electric heater for industrial use.

(Continued on page 56)

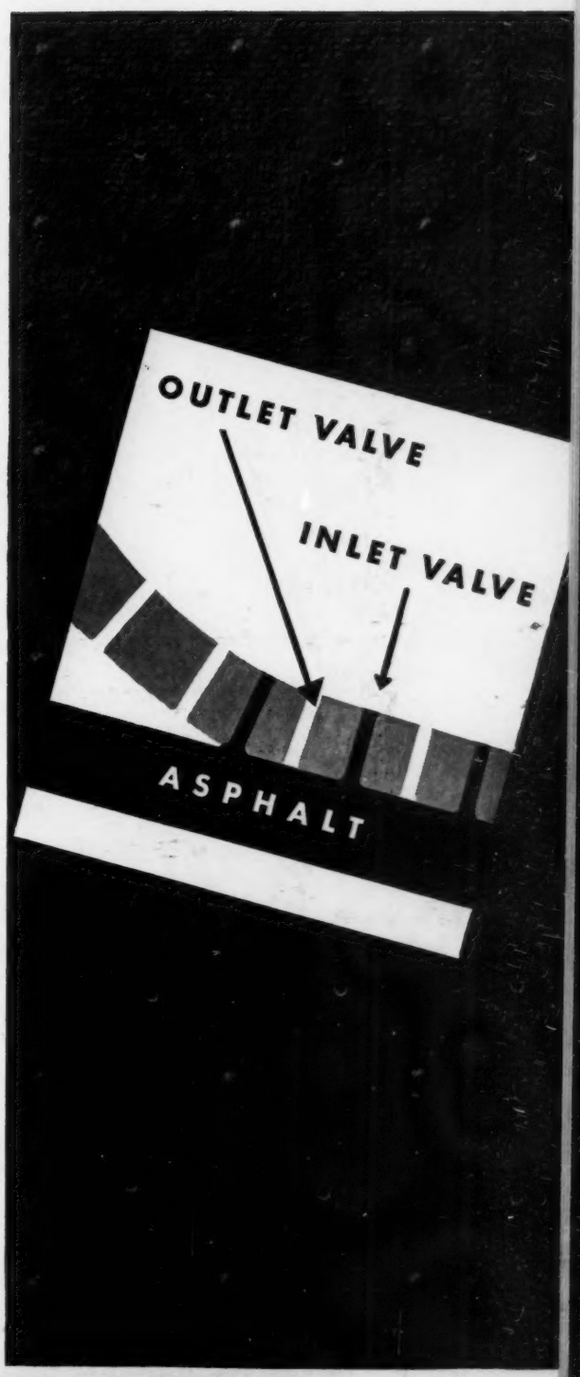
Now... RU-BER-OID Perforated Felt* with

Double Valve Action!

.. another safety factor for built-up roofs

OUTLET valves let air escape — help prevent blistering!

INLET valves let asphalt seep in, tightly sealing felts to each other and to roof deck!



Ruberoid goes a step further to safeguard the life of Built-up Roofs.

Ruberoid's newest innovation is not just Perforated Felt, but Perforated Felt with *inlet* as well as *outlet* valves. The felt is punctured alternately from the upper and lower side of each sheet. Result, *double* valve action!

The *outlet* valves permit the instant escape of air containing moisture or water vapor from between the sheets before the sheets start to "set." This is a safeguard that practically eliminates blistering!

The *inlet* valves permit the ready seepage of hot asphalt from the next mopping as it is applied to the sheet. This penetration grips the underlying mopping. As a result, all holes are completely sealed and felts adhere tightly to each other and the roof.

RU-BER-OID Perforated Felts with double valve action may be obtained in both Asbestos and Asphalt. This new feature provides built-up roofs of unusual strength and long life.

RU-BER-OID Perforated Felt has been used on jobs running back to five years. The appearance of the jobs and the absence of blisters are ample evidence that double valve action will stand up under actual field practice. Its adoption by architects and owners can be recommended, not as a substitute for good workmanship, for there is no such thing, but as an improved practical aid to it. We urge you to write for full details. Address Dept. PP-4, The Ruberoid Co., 500 Fifth Avenue, New York, N.Y.

**Patented*

RU-BER-OID

ROOFING AND BUILDING PRODUCTS

U.S. Off.

Reg. U.S. Pat. Off.

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(*Continued from page 54*)

SLIDING DOORS—Specifications, installation diagrams, and full information on Sav-A-Space sliding doors for homes, office buildings, hotels, and apartments, are contained in an 8-page folder from the Fir Door Institute, Tacoma Bldg., Tacoma, Wash.

WOOD LATH — Data on the grades, lengths, application, and coverage of Western Pine lath is contained in a handy 4-page folder, No. 308, 3 x 6 inches, available from Western Pine Association, 510 Yeon Building Portland Oregon.

ROLLING DOORS—A new 40-page catalog (Bulletin No. 31) from The Kinnear Mfg. Co., 820 Fields Ave., Columbus, Ohio, illustrates and describes the many types of steel and wood rolling doors and partitions made by the firm. Photographs show the types of doors, together with specifications, construction and installation details. Dimension data is included in a series of tables.

PAINT SPECIFICATIONS—Sherwin-Williams Co., 101 Prospect Ave. N.W., Cleveland, Ohio, has issued a new 16-page book containing complete instructions and specifications on the painting of building interiors and exteriors. Color samples of different types of paints and varnishes are included. A tabulation is made of the proper finish for all interior and exterior industrial maintenance work. Information is also given on finishing methods used on homes and commercial buildings.

PIPES AND FITTINGS—Bulletin No. 550 from United States Stoneware Co., Akron, Ohio, is a 12-page catalog on acid-proof pipe and fittings. The book discusses the chemical analysis and physical properties, presents engineering and technical data, describes caulking processes. Cross section diagrams of various types of pipe fittings, together with dimensioning data, are included.

BUILDING INSULATION—Four-page descriptive folder from Kimberly-Clark Corp., Neenah, Wisc., on its Kimsul—a sheeted, laminated, compressed and asphalted insulating material. Photographs show typical installation details.

MASONITE PRODUCTS—A 20-page catalog from Masonite Corp., 111 W. Washington St., Chicago, presents the 1942 Presdwood products specifications for Tempered Presdwood, Presdwood, Presdwood Temprtile, mouldings and friezes, other Masonite products. Each product is discussed from the point of view of material, framing, nailing and cementing application, joint treatment, finish. Typical installations are shown.

EVAPORATING CONDENSERS —Latest technical information on its Type 9Q evaporative condensers is contained in a series of leaflets recently issued by Carrier Corp., Syracuse, N. Y. The 2-page sheets describe equipment designed to supplant water-cooled condensers and water-cooling towers in refrigerative systems, and also to cool liquids in various industrial applications.

These Heaters REVOLVE! workers are not subjected to constant sickening blasts of hot air
WING
The series of photographs below are from continuous exposures made during a "smoke bomb" demonstration of Revolving Heaters.
1 Start. Smoke from bomb at top of heater is drawn through heating element and is discharged in slowly moving streams to the working level.
2 Note how the streams of heated air flow gently even to remote corners of the room and around obstructions.
3 The discharge outlets have slowly revolved through 180°, building up a blanket of uniformly warmed air.
4 Still turning through 270° the streams of heated air are covering every part of the working level.
5 The discharge outlets have completed one revolution, demonstrating conclusively the thorough coverage of the WING Revolving Heater.

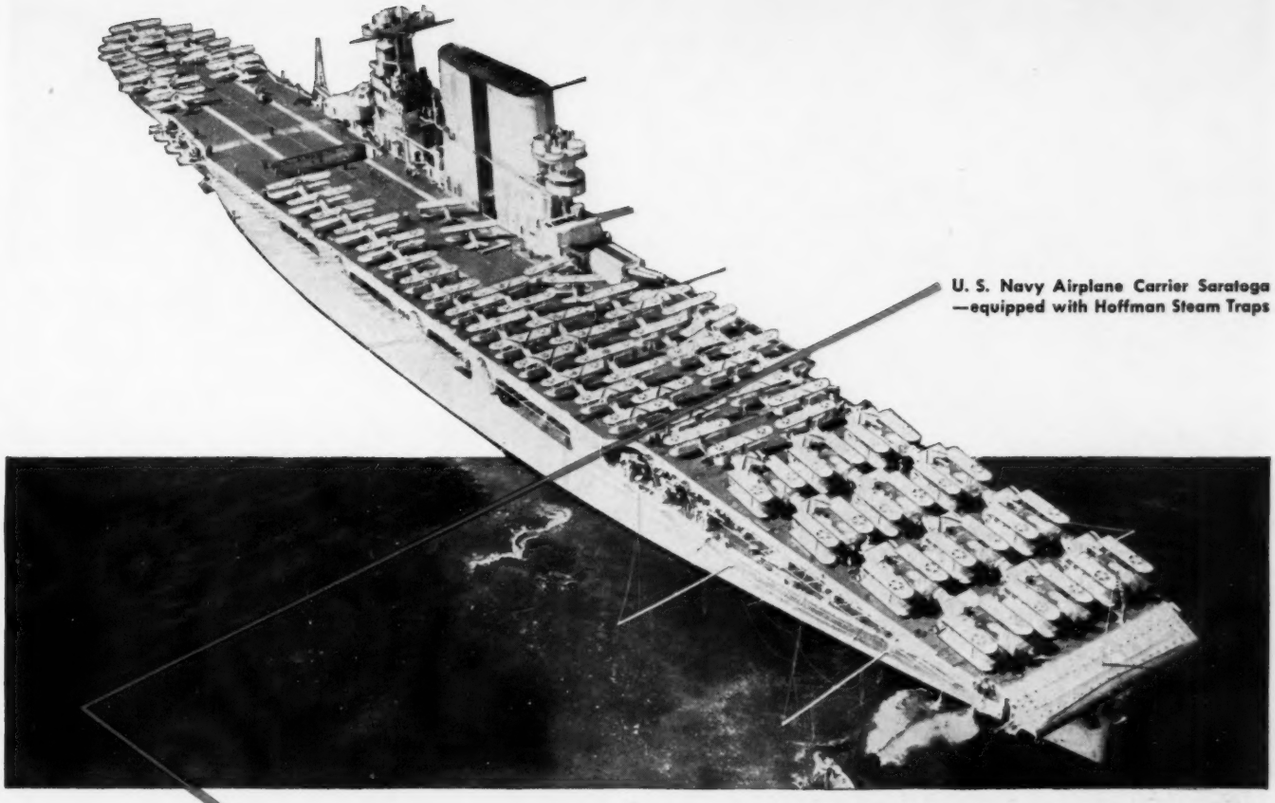
Anything that contributes to Worker Efficiency is of untold value NOW!

WING Revolving Unit Heaters bring a sensation of fresh, live, invigorating warmth to workers, increasing their sense of comfort; which tends to speed their efforts and at the same time make them more accurate in their work.

The reasons why this is the modern method of heating industrial plants are given in detail in WING Bulletin HR-1, a copy of which will be sent on request—or you can see it in SWEET'S Engineering and Architectural Catalogs

L. J. WING MFG. CO., 150 W. 14th St., NEW YORK, N. Y.

WING Revolving UNIT HEATERS



U. S. Navy Airplane Carrier Saratoga
—equipped with Hoffman Steam Traps

HEATING *at Sea*

WHERE FUEL IS VITAL TO DEFENSE, HOFFMAN TRAPS CONSERVE IT

At sea, a vessel's range of usefulness is bounded strictly by its fuel supply. Full value from every ounce of steam, in these days, is a positive demand!

Any heating plant is sparing of fuel in direct proportion to the efficiency of its control equipment. That the Navy plane carrier, U. S. S. Saratoga, far-ranging unit of our first defense line, is equipped with Hoffman Steam Traps is a clue to anyone planning a new or modernized heating plant. For on land or sea, Hoffman Specialties assure full utilization of steam and conservation of precious fuel.

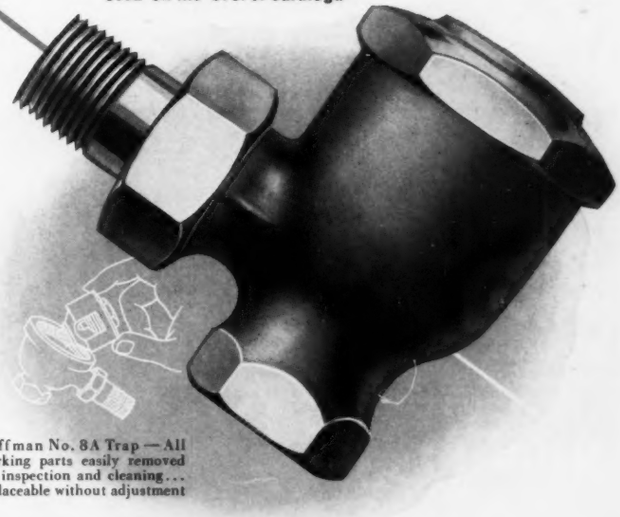
For a quarter century, heating engineers have specified Hoffman Products... because every refinement of design which adds to performance is included in them—at no greater cost!

Hoffman Valves, Traps and Pumps are thus a *quality*, *time-tested* line of products. Apply any standard of measurement you choose . . . efficient operation . . . dependability . . . service life . . . or what experienced heating men say of them, and you will have shown yourself why Hoffman is the choice in so many installations.

The Hoffman line is complete. From this single source you can satisfy every specialty requirement of a steam heating system . . . and receive that *extra* guarantee which comes only with undivided responsibility for satisfactory operation.

Write for information on Hoffman Controlled Steam or Hot Water Heating Systems and for counsel on heating problems. Hoffman Specialty Company, Dept. PP-4, Indianapolis, Ind.

Hoffman No. 8 Steam Trap as used on the U. S. S. Saratoga



Hoffman No. 8A Trap — All working parts easily removed for inspection and cleaning... replaceable without adjustment

HOFFMAN *Controlled Heating*

VALVES, TRAPS, VACUUM AND CONDENSATION PUMPS, FORCED HOT WATER HEATING SYSTEMS

STEAM / HOT WATER

Feature of the recently-concluded annual exhibition of the New York Society of Craftsmen was the grouping of exhibits functionally into rooms and "corners." The idea was worked out in collaboration with Ernst Payer, Architect, who designed the backgrounds and display cases. The exhibition included examples of ceramics, enamels, bookbindings, metals, jewelry, needlework, weaving, and sculpture. Rodney McCay Morgan photographs

(Continued from page 42)

about the need for a "Ten Dollar Architect." He suggested that professionals might descend from Parnassus, humanize themselves where necessary, and break into the consciousness of ordinary people who have small architectural problems. Two hour's work for a ten dollar bill, giving advice on the little things which puzzle many a householder bent upon improving his castle. "A few weeks ago I was looking for architectural advice . . ." said Mr. deLue, and in a twinkling *Tom McDonough* whipped out a card and had it passed up to the head table. The subject was provocative, as *Ben Adams Buck* will testify, for he claimed to have surveyed the field and found too much competitive free advice being given by companies with something besides service to sell.

Caldwell Moise, Jr. has voiced an opinion that even if you forget the proper functioning of architects and draftsmen for the duration, it should be possible to employ their talents in many special war jobs where engineering training is now demanded. We all agree. This belief assumes the basic adaptability and intelligence of architecturally trained men, even if they don't bear the charmed tag of a well-known technical school. It might assume that if the burden of proof is on the arck, he should be able to dredge up a champion who could arrange a green light for the proving of it. But could you? The writer, working for the Architectural League of Boston (after June 17, 1940) in an effort to anticipate and aid the selfsame conversion of draftsmen through special training or sympathetic interest from on high, got nowhere fast. General impression gleaned from that investigation was that if you could threaten to tell how a man beat his wife, the beater's human interests might be broadened beyond their usual restricted sphere. Subsequently a great engineering office expansion reduced this emergency in a measure, but even now there are those who still feel an ingrained

(Continued on page 60)

HIGGINS PHOTO PASTE — the handy substitute for RUBBER CEMENT

With rubber cement increasingly hard to obtain, Higgins Photo Paste offers a convenient substitute. This well-known white paste is quickly and easily applied and results in the least crinkling of the paper of any type of aqueous paste. Order it from your dealer, today.

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AVOID DELAY SAVE MONEY on WINDOW INSTALLATION

1 PELLA CASEMENT UNITS arrive on job scientifically crated. The entire frame and sash are well protected against nicks and bumps. Easy to handle. Easy to unpack.

2 EACH UNIT 100% ASSEMBLED at factory including hardware, weatherstripping, Rolscreens and Dual Glazing (if specified). No waiting for hardware, sash weights, etc.

3 PRE-FITTING AT FACTORY enables unit to be lifted right into rough opening. Weathertight installation completed in about 30 minutes. No cutting or fitting necessary.

THERE are over 300 distinctive combinations possible with Pella Casement Units! Ventilating units can be supplied in *stock sizes* 1, 2 or 3 lights wide and up to 5 lights high to set singly or in combination with other fixed or ventilating units. Muntins can be omitted at no extra cost. Corner and angular mullions of any degree can be specified

Pella construction utilizes steel for strength and wood for beauty. Welded steel frames are of 16-gauge, rust-proofed steel—full jamb width 5-5/16". Frames are faced with clear White Pine (other woods if desired). Genuine White Pine sash — toxic treated. This construction protects against sagging and assures perfect closure at all times.

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ROLSCREENS ★ VENETIAN BLINDS

SAVE DRAFTING TIME!
New! 22 loose pages of scaled details on Pella Casement Units. Suitable for tracing right into your plans. All types of installations. Come in A. I. A. File Folder. Send for your FREE set! Supply limited!

Rolscreen Company, Dept. 142, Pella, Iowa
YES! *Please send me that handy FREE Set of file-size Details on Pella Casements.*

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(Continued from page 58)

itch for more responsibility and a chance to use their initiative and special skills more freely than they are permitted at the sign of the 4 Aitche. PENCIL POINTS has attacked the immediate "talent release" problem from a new angle, and we are particularly interested because here at last is a champion whose interest is nationwide and as closely identified with the slogger as with the master.

Stanley Setchell and the talented *Mrs. S.* are now property holders in exclusive Wellesley, that suburb of conspicuous consumption, where men are slaves to lawns. We had just been selecting a sunny room for ourselves at the local Town Farm when *Doug Gass* told us about it.

Prefabrication Expert *Prentice Bradley* has returned to the Modular Service Association after six months of Canadian supervision at a big Homasote housing project. When you mention "jig table" to most of us it suggests the middle phase of a Spanish dancer's night out, but to Bradley it's nothing but a mess of notches and slits and humorless precision. LEON KEACH

EDUCATION SPEEDS UP

Colleges throughout the country, spurred on by grants from the U. S. Office of Education, have taken the initiative in providing courses for architects and engineers interested in wartime construction.

A course in Defense has been proposed at *Columbia University,* New York, in the sponsoring of which the New York Chapter, A.I.A., participated. The course will cover such subjects as aerial photography, protective concealment of plants, blackouts, bombing techniques, etc. The enrollment will be limited to forty students, and there will be no fee for instruction.

The School of Architecture and Allied Arts, *New York University,* New York, has announced five intensive and practical drafting courses to prepare architectural and engineering draftsmen for the more specialized drafting positions in Civil Service, or in private engineering and construction organizations engaged in the war program. Courses, which began April 1, are being given in Electric Light and Power, Heating and Ventilating, Plumbing, Structures (reinforced concrete, steel, wood), and Ship Construction. A ranking architect or engineer with background and experience in office and field practice is in charge of each course, assisted by experienced draftsmen for individual supervision and criticism.

At *Pratt Institute,* Brooklyn, N. Y., a new series of lectures began the Institute's second year of bombardment protection courses under Government sponsorship. Courses will be offered continuously as long as the emergency lasts. Each series lasts five weeks. Practising architects and engineers who have the new problem of designing bomb-resistant shelters, providing protection for industrial equipment, and of designing industrial camouflage installations are invited to attend the lectures at the Institute's Department of Architecture. Lecturers for the courses include *James C. Boudreau,* Director of the Institute's Art School, who discusses aerial photography and protective concealment; *C. C. Briggs,* Supervisor of the Department of Architecture, who discusses the effects of bombing, the design of structures to resist shock and fragmentation, and the new permanent changes in structures and planning brought about by the war; *William J. Mc-*

"It's Wheeling Steel"

This *Free Handbook* Should Be In Every Industrial Planner's Office

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EXPANDED METAL MESHES *for* *Safety—Speed—Economy*

"Economy" is another word for *Steelcrete*—the Expanded Metal Mesh that saves so much time and steel in countless multiplicities of present-day construction. Steelcrete *Safe-T-Mesh* is cut and drawn from a solid steel plate and then processed to remove the fins and sharp edges caused by shearing. It is low in cost and is easy to cut and frame to pattern with no *spreading* or *raveling* of *diamonds.* Steelcrete Mesh provides the maximum in strength, visibility, ventilation and sanitation.

Styles, Sizes, Accessories in Wide Variety

The Steelcrete Handbook of Expanded Metal Meshes illustrates and describes the many types available. Also included are full specifications, with convenient drafting room standards. We invite your request for a copy; or your inquiry for special requirements. Steelcrete is available through 14 conveniently located warehouses.

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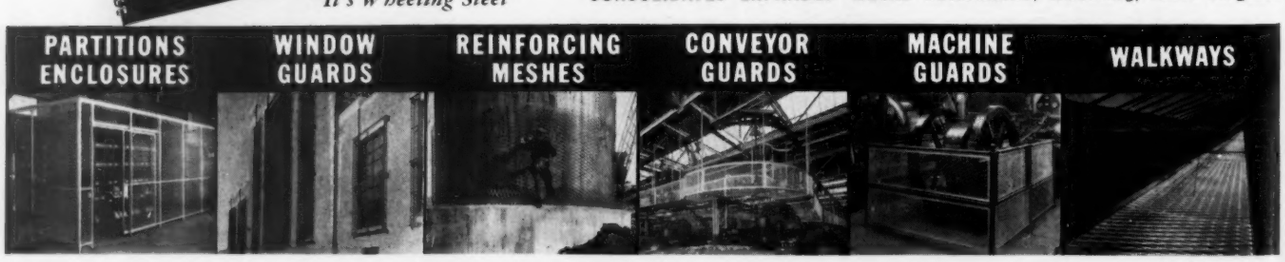

AN OFFER

with a very small string attached!

Let us send you, with our compliments, two Venus Pencils in whatever degrees you select. We do this because we want Venus to speak for itself, right in your drawing hand.

Now, the string. It's simply this. We ask you to forget pencil names and reputations, prejudices and inclinations, hearsay, habit and present preference. Just try VENUS on its own merit for the kind of work you are doing, and let VENUS speak for itself. You'll find its absolute smoothness and precise grading to your liking. There's a mighty good reason why more artists, architects and engineers buy VENUS than any other drawing pencil.

Just drop us a postcard giving us your name and title, your firm name and address. Specify the two degrees you wish to try.

VENUS *The AMERICAN Drawing Pencil*

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Guinness, engineer and coordinator of bombardment protection courses at Pratt; *Erling F. Iverson,* who has studied air raid shelters abroad and has designed several shelters in this country; and *Konrad F. Wittmann,* architect and authority on industrial camouflage.

Pratt Institute has also announced that an optional summer term of architecture will be offered beginning June 2. The Department of Architecture will henceforth operate on a basis of three terms of sixteen weeks so that students who exercise the summer option will be able to complete the regular four-year course in two and two-thirds years. This speed-up of the architectural program has been arranged for the benefit of students (eligible for military service or in line for defense work) who are anxious to complete as much of their education as possible before being called to service.

At the Rome (N.Y.) Free Academy, a course in advanced structural design is being given under the supervision of *Syracuse University* as part of the National Defense Training Program. Instructor is *Sidney F. Borg,* of Turner Construction Co., contractors on the Rome Air Depot. The course is being given without tuition to either students or employers, and will prepare students to design more complicated structures than are met with in ordinary practice. Students in attendance are employees of Turner Construction Co., the U. S. Engineer's Office, and of various plants in the vicinity of Rome.

In accordance with the general policy now adopted by the *University of Michigan,* the College of Architecture and Design will offer a full summer semester program of fifteen weeks. All essential required courses in the curriculum will be available to entering students and those already in residence so that they may thus accelerate their programs. Many students, the University feels, will want to do this summer work preparatory to special work with the armed forces.

The *Yale University* Department of Architecture also has adopted a new curriculum. The unified course of study fits in with the University's accelerated war program also, and enables a student to get his professional education in three and one-half years instead of the usual five years. The Yale program will stress the interrelation of every course in the department, and provide automatic synchronization of the work in theory, design, and construction. The twin objectives of the new curriculum will be to prepare architects for immediate wartime services and for post-war reconstruction through government bureaus as well as private clients. The program will be put into operation during the summer term which starts July 6. *Dean Everett V. Meeks,* in announcing the revised program, said, "While war problems and the structural and engineering side of architecture will be stressed, the vision of the peace to follow and their roles in it should be generating now in the minds of the architects."

A short summer course in City and Regional Planning will be held at the *Massachusetts Institute of Technology* during the three weeks beginning Monday, July 13. The program, sponsored jointly by the Institute and the American Society of Planning Officials, will be divided into four sections: City and Regional Planning, Planning Legislation, Planning Administration, and Techniques of Planning. Further details on the courses may be had from Professor *Frederick J. Adams,* M.I.T., Cambridge, Mass.

New Critical List NOW PROVIDES For WEISWAY Cabinet Showers

Typical Weisway installation shows how these leakproof cabinet showers provide a complete, self-contained bath, in a three-foot square or less, in old or new buildings.

★ Already widely used in remodeling for defense living quarters, Weisway Cabinet Showers now have unquestioned priority rating for both new and remodeled defense housing — whether large-scale projects or individual home.

The official defense housing list of critical materials specifically authorizes this type of bath... and thus gives further recognition to the special adaptability of Weisways to our urgent housing needs. Weisway Cabinet Showers save in many ways,* while providing a complete, leakproof bath in a 3-foot square or less.

In the Weisway line you have a range of models to meet various needs, high quality workmanship, guaranteed leakproof construction in every model! Our new catalog booklet, with full color illustrations, gives complete information about "Weisway Cabinet Showers for Defense Living Quarters."

Write today for your copy—it's sent free and without obligation.

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*WEISWAYS SAVE FOR UNCLE SAM

These self-contained, leakproof baths save space... save metal... save water and hence fuel... save bathing time for busy defense workers... and provide the cleansing, refreshing shower bath that builds health and morale.

WEISWAY Cabinet Showers

HENRY WEIS MFG. CO., INC.
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"From the Board of Directors to Architect Ambrose"

THERMAL CONDUCTIVITY ONLY 0.30
CHANNEL TO ELIMINATE BLISTERS DUE TO AIR EXPANSION
ASPHALT VAPOR-SEAL ON ALL SURFACES AND EDGES

. . . "Because he specified the CELOTEX VAPOR-SEAL ROOF INSULATION *which has helped accelerate our war production*"

THIS ORCHID might have been presented to any one of many architects—by any one of many boards of directors up and down the land. Because this photograph shows *only one of many vast war industry plants* where Celotex Vapor-seal Roof Insulation is accelerating production—through temperature and humidity control.

Records show radically *reduced air-conditioning costs* in plants using Celotex Vapor-seal Roof Insulation. And, in the northern states, it aids amazingly in fuel conservation, important in war time.

If industrial atmospheric control forms any part of your current problems, let us send you latest specifications on this thoroughly tested roof insulation which is (1) *readily available NOW,* (2) able to compete in efficiency with any other type of rigid roof insulation, since its thermal conductivity is 0.30 Btu, (3) permanently protected against termites and dry rot by the exclusive, patented Ferox Process. Write today!

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VAPOR-SEAL ROOF INSULATION

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COMPETITION ANNOUNCEMENTS

LONG AND AVERY PRIZES AWARDED

At a dinner held March 19, the Architectural League of New York awarded the Henry O. Avery and Birch Burdette Long prizes to the winners in a competition for small sculpture and architectural rendering. The citations made for the Long award were:

"For examples of distinguished and varied types of presentation in water color, a prize of $100 to J. FLOYD YEWELL."

"For a group of delightfully brilliant pencil drawings, decorative as well as realistic in character, a prize of $100 to LOUIS C. ROSENBERG."

"For excellent, clear cut pencil drawings vividly suggesting structural form, honorable mention to WILLIAM JENSEN."

The following citations were made for winners in the Henry O. Avery Prize award:

"For his small figure entitled Air Raid, its highly original and pertinent subject matter, combined with great beauty of execution, a prize of $50 to ARISTIDE B. CIANFARANI."

"For his small model of Lafayette, perfection of handling and originality of treatment and beauty of design, a prize of $50 to DONALD DE LUE."

"For her small bronze entitled Cock Crow, originality of technique and most distinguished handling of material and color, honorable mention to KATHARINE W. LANE."

Two cash prizes were given to winners in each classification, since the Avery and Long prizes had not been awarded by the League for the past several years.

Prizewinners and honorable mention winners, as well as other contestants, had their entries on display at the League until April 4. On exhibition were drawings in various media, from the office sketch of the architect to the completely rendered presentation of the professional illustrator. The small sculpture exhibit included a variety of subject matter and technical execution. The exhibit was the first of its kind devoted to rendering and small sculpture. Contestants for the awards were members of the League, the National Sculpture Society, and other professionals in the metropolitan New York area.

The Jury for the selection of the prizes was made up of *Hugh Ferriss, Arthur Loomis Harmon,* and *Chester B. Price* for rendering; *Margaret French Cresson, Eleanor M. Mellon,* and *Wheeler Williams* for sculpture. The Committee on Arrangements was made up of *Margaret French Cresson, Hugh Ferriss, Wheeler Williams,* and *Chester B. Price,* chairman.

BACK TO THE CAMPUS!

Architects whose principal offices are in Michigan were given an opportunity to enter a competition for a campus arrangement and architectural design for the proposed three-block extension of Wayne University (Detroit) campus, and for the design of a student center building. Cash prizes totalling $4,000 will be awarded. Programs may be had from *Branson V. Gamber,* professional adviser, 3500 Guardian Building, Detroit, Mich., on or before April 11. The competition, which will close on June 1, has been approved by the A.I.A., and is sponsored by the Detroit Board of Education.

(Continued on page 68)

Sedgwick Dumb Waiters and Elevators

SAFE • DEPENDABLE • ECONOMICAL

Electric and Hand Power

How You Can Help to Meet War-Emergency Conditions—

SPECIFY HAND POWER

ELEVATORS AND DUMB WAITERS

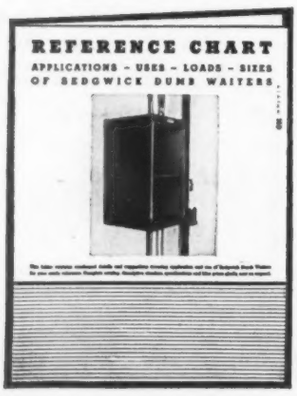
Wherever Possible

SPECIFY *Hand Power* SEDGWICK DUMB WAITERS

for food service, supplies, garbage disposal in canteens, mess halls, hospitals and other institutions, and for any special needs where loads do not exceed 500 lbs.

SPECIFY *Hand Power* SEDGWICK ELEVATORS

for handling freight and other heavy or bulky loads, for movement of patients and staff in hospitals, for mortuaries, and for any special needs where loads range up to 2,000 lbs.



Sedgwick hand power equipment offers many advantages. Most important, perhaps, is the ability to maintain service should electric power be interrupted. Immediate delivery, quick and inexpensive installation, economical operation and freedom from maintenance costs are other features. Remember, that Sedgwick hand power Elevators and Dumb Waiters have been specified for almost 50 years.

Write for THIS USEFUL GUIDE — Also helpful Specification Folder

Sedgwick is busily engaged in producing electrically operated equipment for war needs. Electric motors and parts are vital to Victory.

SEDGWICK MACHINE WORKS

164 West 15th Street *Established 1893 Member of Producers' Council, Inc.* New York, N. Y.

Here's a Manual that's a "Must"!

THE Josam MANUAL of Specifications and Roughing-in Dimensions Covering Josam Products for Plumbing Drainage Systems

. . Now off the Press!

●"Here's a handy practical Manual worth having . . another helpful JOSAM service. When you see it you'll agree it's a book you *must* have."

JOSAM offers to architects, engineers, and specification writers, a Manual in handy pocket size, representing an authoritative and technically correct engineering service which identifies the proper type of drainage product for any specific purpose, with size and location recommendations.

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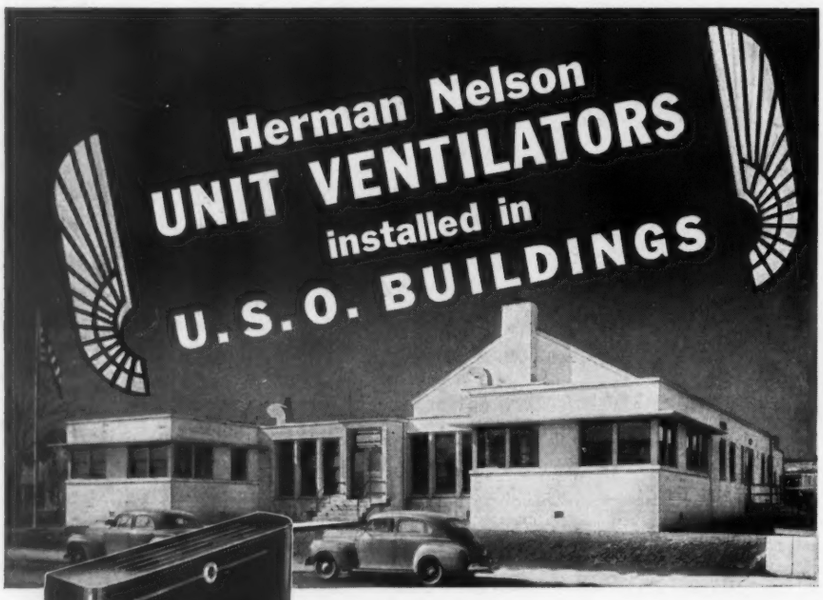
DECORATION ON A BUDGET *John E. Maier,* Brooklyn, New York, was awarded first prize of $250 and the A.I.D. Defense Housing Medal in the national competition for the design of defense housing interiors, sponsored by "Interior Design and Decoration" magazine, the American Institute of Decorators, and the Public Buildings Administration. Mr. Maier's solution called for decorating and furnishing a four-room, low-cost defense housing unit with modern furniture on a budget of $466.22.

The second prize of $150 was given to *Bill Atkinson,* of Manlius, New York, for a modern decorative scheme on an $812.48 budget. *Deering Davis,* A.I.D., of Minneapolis, Minnesota, took third prize of $100. His decorative scheme called for Early American furnishings and was based on a $246.51 budget. Seven honorable mentions were given for decorative schemes designed for budgets from $421.78 to $966.70.

Incorporating selections from current offering of manufacturers, department stores, mail order houses, and other domestic furnishings establishments, the entries embraced complete furnishings and decorative schemes for four rooms —living room, dining alcove and two bedrooms. Lowest cost of a complete furnishings scheme entered was $246.51; highest, $1200.

Serving on the jury of award were: *Harry V. Anderson,* Publisher of the magazine, chairman; *PBA Commissioner W. E. Reynolds; Nancy V. McClelland,* A.I.D. President; *Gladys Miller,* Interior Designer and Defense Housing Consultant; *Virginia Conner,* Interior Designer; *Edward Rowan,* Assistant Chief, PBA Fine Arts Section; *Gilbert Stanley Underwood,* Architect; *Spence Wildey,* Industrial Designer; *Frederick Rahr,* Color Consultant on Defense Housing; and *Mrs. David Banghart,* wife of a defense worker, and occupant of a defense housing unit.



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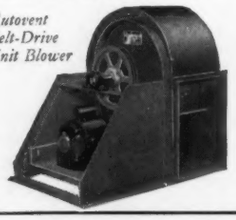

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SYRACUSE SCHOLARSHIPS

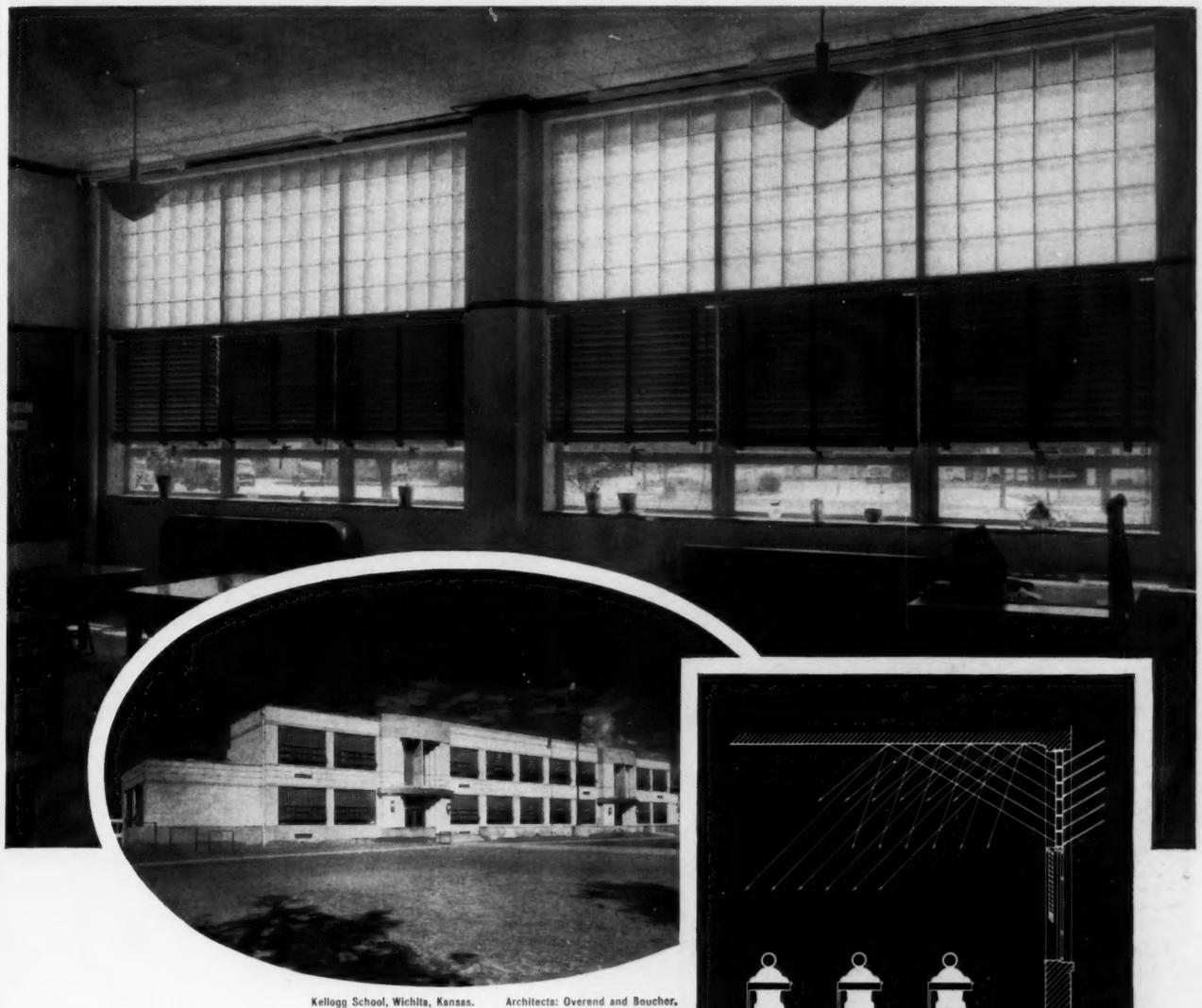
The Department of Architecture, Syracuse University, Syracuse, N. Y., has announced five available first-year scholarships to be granted by competition on July 11. One $400 and four $200 scholarships will be granted. Scholarships may be held for five years. Further details may be had from *Professor L. C. Dillenback,* Director of the Department of Architecture.

ROME COMPETITION

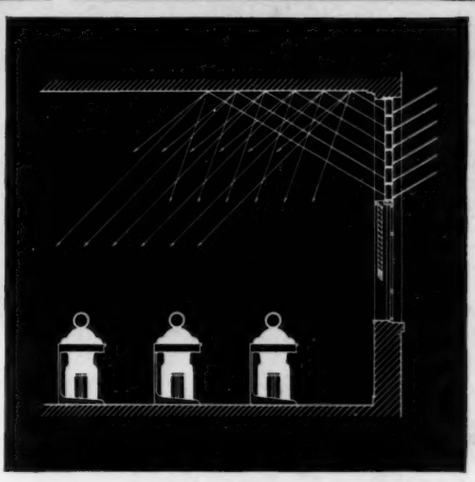
Nine architectural students have been selected to participate in the final competition for the cash prizes offered by the American Academy in Rome. Of the 46 competitors who submitted solutions to the problem which called for a design for permanent officers' quarters and recreation center at a military base on a large island in the Far East, the following nine will compete for the cash awards:

Charles S. Bicksler and *Charles Goldberg,* Pennsylvania State College; *Edward L. Burch, Karl J. Holzinger, Andrew E. Kuby, Jr.,* and *Hollis Lyon Logue, Jr.,* University of Illinois; *Raoul A. Ibarguen,* University of Pennsylvania; *Allen R. Kramer,* Cornell University; *Walter S. V. Litwin,* Catholic University and Armour Institute.

The final competition will extend over a period of five weeks beginning April 11. Cash prizes will be given in lieu of the Academy's usual award of a two-year fellowship for study and travel in Eu-



Kellogg School, Wichita, Kansas. Architects: Overend and Boucher.



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PC Prism Light-Directing Glass Blocks

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(Continued from page 68)

rope. The winner of the final competition will receive a cash award of $1,000; second, third, and fourth prizes of $100, $50, and $25 respectively will also be awarded.

The program was written by *Robert A. Willgoos,* Associate Architect of the U. S. Engineer Board, Camouflage Section. Members of the Jury of Award were *William Pope Barney, J. André Fouilhoux, Ernest A. Grunsfeld, Jr., Alfred Easton Poor,* and *Eric Gugler,* chairman.

SCULPTURE COMPETITION

The Liturgical Arts Society, New York, recently announced to seventy-six American sculptors that, on the basis of photographs of their work submitted last fall, they had been selected to compete for a statue of "Christ, the Light of the World." This statue will form the main element in the architectural design of the façade of the new building, now completed, which will house the national headquarters of the National Catholic Welfare Conference in Washington, D. C.

Each competitor is to submit a 30-inch model of the final statue, which will be of bronze and over 15 feet in height. The models will be judged early in July by the following jury: *Frederick Vernon Murphy* and *Barry Byrne,* Architects; *Lee Lawrie, C. Paul Jennewein, Gaetano Cecere,* Sculptors.

The prizes offered are: $1,500 first prize; $500 second prize; five additional prizes of $200 each. The winner will be awarded a contract to make the finished bronze statue, and for this work he will receive an additional $6,000 fee.

BRIDGE PHOTO COMPETITION

The American Institute of Steel Construction, 101 Park Ave., New York, will award a plaque to the most beautiful steel bridges built during 1941. A jury of nationally known architects and engineers will make its selection from photographs. Designs which will be considered the most æsthetic solution among monumental bridges, medium-sized bridges, short span bridges, and movable bridges, will be selected for the awards.

Builders and owners of such structures are requested to submit photographs to the Institute not later than May first. The following data should accompany the photographs: name of bridge, location, total cost, date completed, date opened to traffic, span length, roadway width, and name of fabricator, engineer, and owner.

MANUFACTURERS' DATA WANTED

OTTO G. HOFER, *Structural Draftsman,* 5541 Fulcher Ave., North Hollywood, Calif. (Data for complete A.I.A. file.)

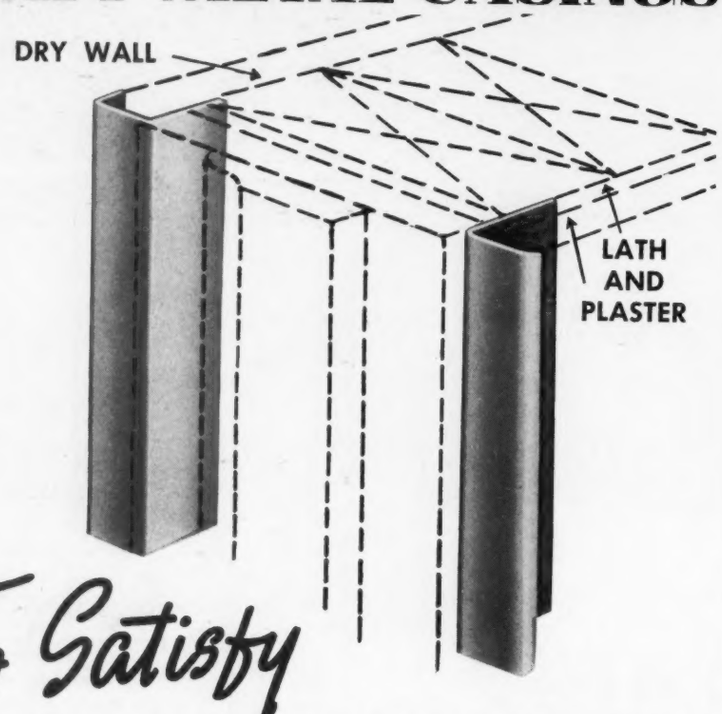
VINCENT MISCOSKI, *Draftsman,* 1808 Potomac Ave. S. E., Washington, D. C. (Data for A.I.A. file.)

C. PALMER, *Draftsman,* 371 N. Kenilworth, Elmhurst, Ill. (Data for complete A.I.A. file.)

GEORGE J. STERN, *Structural Draftsman,* 803 N. Occidental Blvd., Los Angeles, Calif. (Data for complete A.I.A. file.)

WILLIAM W. WOLF, *Architect,* 875 Bush St., San Francisco, Calif. (Data for complete A.I.A. file, and prices.)

KNAPP METAL CASINGS



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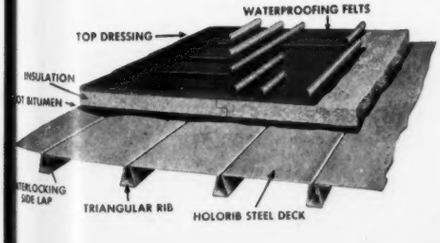

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THE SOUTH IN ARCHITECTURE, *(The Dancy Lectures, Alabama College 1941), by Lewis Mumford. ($2, 5½" x 8½", 147 pages—Harcourt Brace & Co., New York)*

To these times Lewis Mumford has brought a scholarly study of the fiber of American culture. For today's confusion and sacrifice he sees the need for understanding anew the progress and the civilization that Americans are defending.

"Thomas Jefferson was one of the last true figures of the Renaissance". In his devotion to the classical forms of the Roman Empire he brought to the comparative wilderness of America the outward beauty of the universal architecture of his time. Yet his plans were influenced by the demands of frontier life. He founded a university where the intimate relation between teacher and student was to be paramount, yet this teaching was to be tempered by the university of its classic habitation. Jefferson lived in his time, in the past, and truly into the future.

The South gave H. H. Richardson his birth but to the North he gave his architecture. This was an architecture closely related to the American scene. He expressed the spirit of the age in which he lived, that of the robust Empire Builders. His architecture was one of feeling and emotion, not of reason as was Jefferson's. Richardson was a regional architect but he took a universal form of architectural expression. To him that form was a logical method of treating all architectural problems. Richardson, not the Romanesque, was the primitive source of modern architecture.

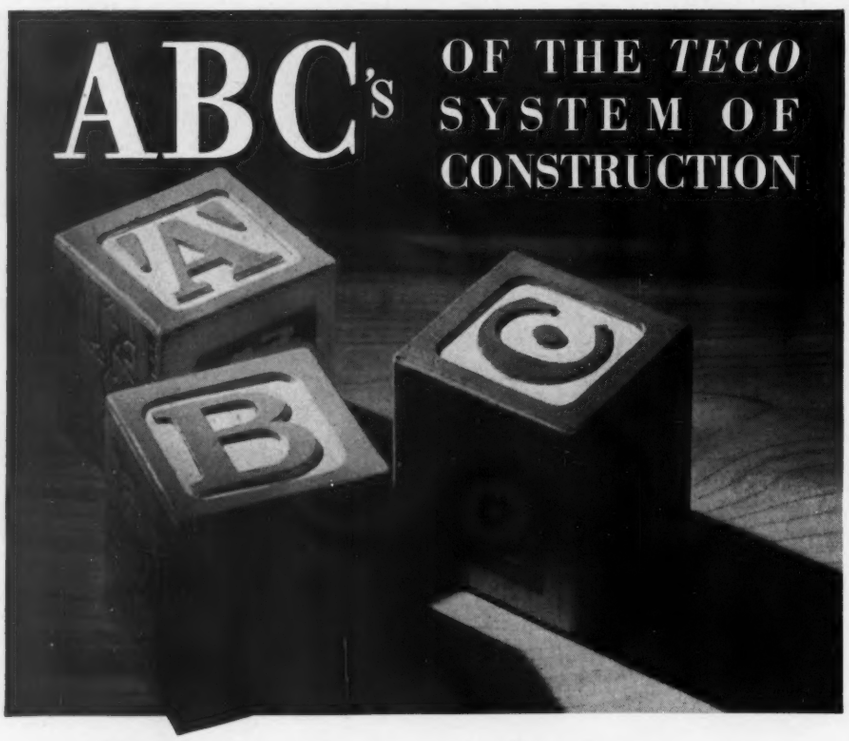
Mr. Mumford's discussion of the work of these two eminent Southern architects leads him to the social implications of their work for our day. If with him "We are interested in the South's contribution to architecture . . . precisely because we believe that this civilization is worth saving, precisely because we believe in human continuity; and we must consider what has been happening to our civilization as a whole, in order to safeguard that future, that destiny, that free play of the human spirit, in which we emphatically believe", then these lectures are a worthwhile part of the literature of today's Architectural thought.

JOHN C. SEWARD

CIVILIAN DEFENSE OF THE UNITED STATES, *by Colonel R. Ernest Dupuy and Lieut. Hodding Carter ($2.50, 320 pages, 5½" x 8⅛", Farrar & Rinehart, New York)*

From the title and the military rank of the authors it might be assumed that the content of this book is technical information prefaced with the usual generalities on the character of Air War and thus dated with the now familiar diagrams of bombs not dropping vertically. It is in fact nothing of the kind. Your writer, for one, is profoundly grateful and hastens to recommend its reading to all those hundreds of thousands in the United States who are anxious to participate in one way or another in this total war in which we all find ourselves. The narrow connotation of "Civilian Defense", which has been given these two words by specialists in structural precautions or similar specialized anti-war activities, is dissipated by the authors.

(Continued on page 74)



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(Continued from page 72)

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The description of the various agencies, and an easy translation of their terms of reference into words that any layman can understand, makes the book particularly valuable. Here you can find out what war organization is—why such organization came into being, and what the civilian can do to make it click. If you are suffering from confusion or complacency, here is something to cure either or both.

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A MANUAL OF AIRBRUSH TECHNIQUE, *by J. Carroll Tobias. (164 pages, illustrated. American Photographic Publishing Co., Boston.)*

Written in a conservative manner, this book is especially for the airbrush neophyte. It describes the principle and construction of the airgun, illustrates the different types on the market, and tells how to choose the "brush" best suited to a particular sort of work. The beginner will be made familiar with the various air-sources available, advantages of each, and can then make his own choice.

The manual gives quite complete instructions for handling the airbrush outfit, as well as for trouble-shooting and recognizing symptoms due to improper adjustment.

A set of numbered lessons, all illustrated and described, will acquaint the beginner with the various motions used in "wielding the gun," and the different effects possible to attain—all arranged in order of difficulty.

Upon mastery of the exercises, advanced work is presented, such as: photo-retouching, commercial illustrations, wash drawings, free-hand airpainting, portraiture, execution of novelty effects, rendering for industrial design, fashion drawing, architectural drawing, etc.

The choice of illustrations, for the most part, might have been somewhat less unfortunate, especially for a book published in this decade. The general smack of the pictures is non-bell-ringing as more dramatic work representative of so wonderful a medium should have been used, rather than, for example, some prosaic, unimaginative visuals of touched-in tombstones and lavatory doors. The greeting cards, lettering, photo work samples, architectural, and fashion airbrush work could easily have stirred the reader's pulse. It must be said, however, that a number of exceptionally excellent and dynamic illustrations were used, though these had already been well publicized before use in the Manual.

A greater unification of the chapters and subject matter would no doubt simplify the reading, as would a more up-to-date format.

To the prospective airbrush artist who cares not for the over-conventionality of layout of this volume, etc., etc., but who desires a working knowledge of his new equipment from one who has no doubt spent a good many years behind his "gun," this book can be recommended.

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Fig. 1266
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THE MART

W. H. SANDS, *Architect,* 56 Columbia Place, Mount Vernon, N. Y., has for sale a number of back copies of the following magazines: PENCIL POINTS—1920-1940; Architectural Record—1916-1932; Architecture — 1932-1934; Architectural Forum—1920-1932. Not all issues are available. List on request.

J. THEODORE BLOMQUIST, *Architect,* 232 Herman St., Hackensack, N. J., wants to sell the following copies of PENCIL POINTS: June 1920-Nov. 1936.

BENJAMIN W. BURGER, 150 Nassau St., New York, has the following copies of PENCIL POINTS for sale at $1 each: Feb., Oct., 1927; Sept., Oct., Dec., 1928; June, Dec., 1929; March, May, July, Nov., Dec., 1930. Mailed on approval.

WM. L. BAILY, *Architect,* 411 Lancaster Ave., Haverford, Pa., has for sale Ware's "Georgian Period", published in 1898, complete in new portfolio covers, with the exception of a few unimportant plates. Original cost $60; will sell for $15. List of other architectural books for sale is available on request.

FIVE LARGE DRAWING BOARDS, used, in good condition. Have horses and drawers. Price reasonable. Clarence A. Currie, 323 Sound Beach Ave., Old Greenwich, Conn.

H. S. CONROW, *Architect,* 110 W. 2nd St., Wichita, Kans. has the following magazines for sale: PENCIL POINTS—Jan.-May, Nov., Dec., 1937 - 1941; American Architect — 1936-1937, except June and Aug., also Jan., Feb., 1938; Architectural Forum — April 1937-Mar. 1938, Apr. 1939-Mar. 1940; Architectural Record — Jan. - Dec., 1937 - 1941; House Beautiful—June, 1939-May, 1940. Will not break the continuity of any one magazine.

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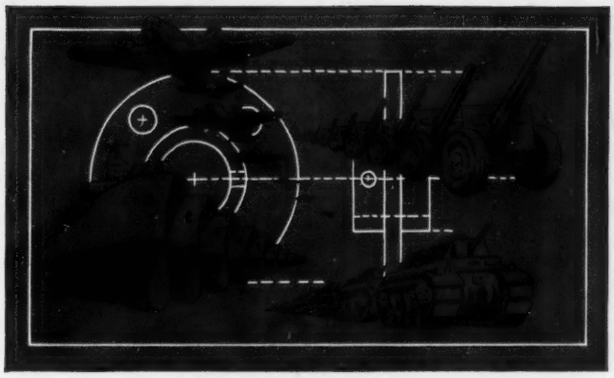
PERSONALS

ALBERT KAHN, *Architect,* was awarded the medal of the Philadelphia Chapter, A.I.A. at an exhibition of architecture and allied arts, held recently at the Philadelphia Art Alliance. The medal was presented in recognition of his outstanding work in the design of many of the nation's important war plants.

ROBERT S. HUTCHINS and CALEB HORNBOSTEL, New York Architects, were recently appointed to the faculty of the Cooper Union Art Schools.

JOHN D. ROCKEFELLER, JR., was recently awarded the second Medal of Honor for City Planning "for distinguished contribution to the Plan of the City of New York." The medal was awarded jointly by the A.I.A. New York and Brooklyn Chapters, the A.S.L.A. New York Chapter, and the A.S.C.E. Metropolitan Section.

LEO MATZNER, *Architect,* has moved his office from 211 W. Front St. to 1266 Salem Road, Plainfield, N. J.



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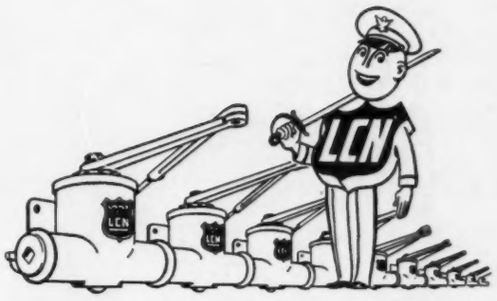

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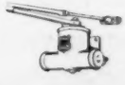

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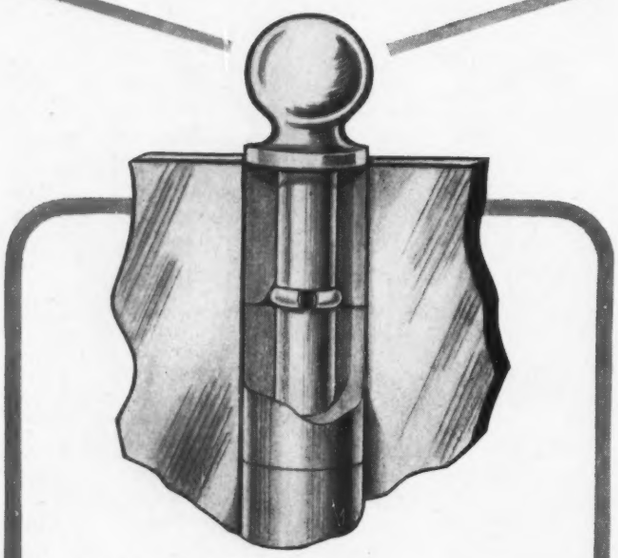

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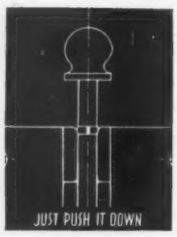

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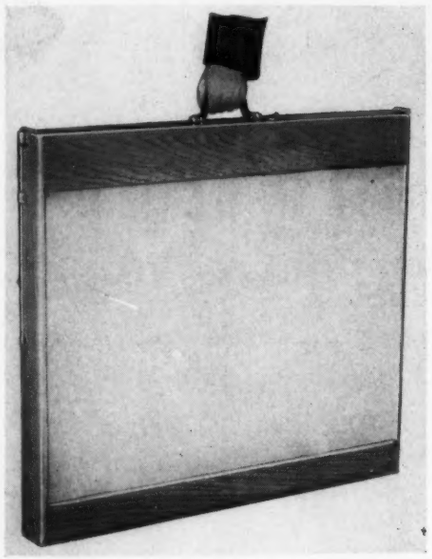
PORTABLE TRACING BOARD

Cool daylight fluorescent lamps furnish even, glareless light for this new portable drafting board made by Hamilton Mfg. Co., Two Rivers, Wisc. Adjustable stop rods hold the board in place when it is used on an inclined surface. The board measures 36 by 31 by 3⅜ inches, is made of white pine with a Manolac finish, and is designed for 110 volt A.C. only. This portable tracing board can be used on any drawing surface.



A leather handle, bolted to the top edge, makes it easy to carry this board which has a 24 by 36-inch plate glass tracing surface.

CONCRETE RODDING MACHINE

The Whiteman Mfg. Co., 3249 Casitas Ave., Los Angeles, Calif., has developed a portable concrete rodding machine to aid in the laying of cement floors, slabs, and walks. The machine enables the operator to handle concrete of a 1" slump, and uses the same standard screeds that are used when rodding is done by hand.

The two rod sticks of the machine ride the headers. Driven by the gasoline engine, the rod sticks make five-inch transverse strokes in opposite directions. During the power-driven transverse movement, a steady forward pull by the operator provides a uniform rate of advance, leaving a pour that has been simultaneously leveled and vibrated and ready for the final finish.

The rodding action puddles and vibrates the concrete into a solid mass through the entire depth and over the whole area, brings the moisture to the surface.

ASPHALT TILE

A low-cost flooring developed primarily for industrial use is a new type of asphalt tile designed by Armstrong Cork Co., Lancaster, Pa., to prevent the accumulation of static electricity. Known as Conductive Asphalt Tile, it provides a surface condition which results in less than 0.1 megohm resistance to static electricity under certain specific conditions. It is suitable as a resilient flooring in arsenals and other industries where static electricity, or the presence of an open flame, presents a safety hazard.

The product is supplied in tile form so that individual units can be easily replaced. It is said to be non-slip, moisture-resistant, odorless. Conductive Asphalt Tile is manufactured of high-melting-point asphalt and mineral ingredients, reinforced with tough fibres, and comes in black in the following gauges: 1/8", 3/16", 1/4", and 3/8".

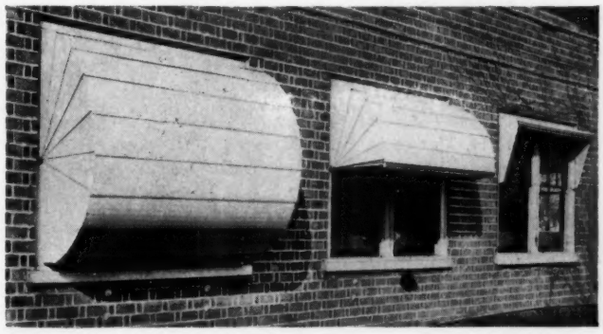
BLACKOUT COATING FOR PLANT WINDOWS

A blackout coating for industrial plant windows and skylights, which provides complete opacity and a gloss-free surface, has been announced by the Carbozite Corp., First National Bank Building, Pittsburgh, Pa. The coating is not a paint, but a smooth-flowing liquid coating which can be sprayed or brushed on quickly. When dry, it leaves a dead black, gloss-free surface, said to be resistant to all corrosive atmospheres and liquids.

Black-out Black is soluble in gasoline, kerosene, naphtha, or any light petroleum solvent, and consequently will dissolve and wipe off glass without disturbing other painted surfaces. It is also readily removed with a putty knife or similar scraper as its coating remains flexible and is easily removed in a single layer without the use of any solvent or softening agent.

BLACKOUT AWNING

A line of sturdily-constructed metal awnings, installed on the exterior of the building, and operated as



simply as the old-time roll top desk, is being manufactured by Acklin Stamping Co., Toledo, Ohio. To conserve space when this Meta-Fold awning is raised, it has been designed in segments of Galvannealed steel that nest together in a telescopic manner. Each segment is sealed from the other by a light-proof, noise-absorbent gasket. The entire awning is rust-proof and fireproof, and can be provided with an inside lock.

The awnings are manufactured to individual specifications, and are furnished in several neutral, non-glare colors to eliminate the telltale reflection from the moon and other outside lights at night.

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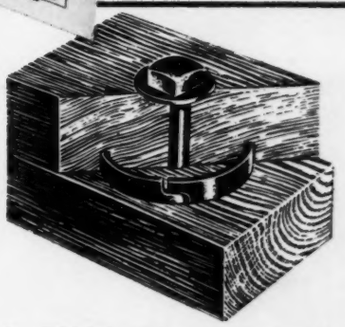

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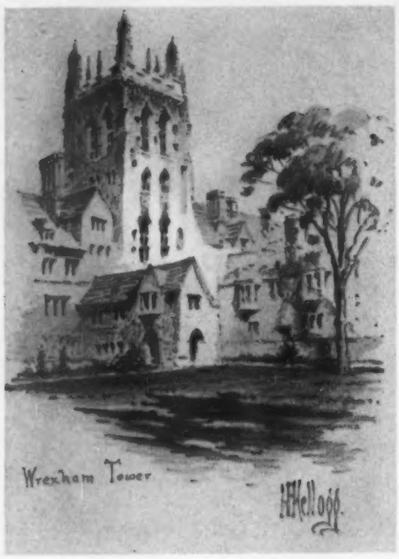


WILLIAM H. REID, JR., *Architect, Billings, Montana, defends the position of the National Association of Real Estate Boards, in regard to War Housing, which was commented on editorially on page 123 of the March issue.*

General Douglas MacArthur made words say that criticism was often found wanting "when all the facts were known."

How frequently we let the jaw drop and the chin waggle, the moving finger write, or the typewriter trip-hammer out, statements that would profit immeasureably by recognizing the infallibility of the General's truism.

To quote from your editorial: "The astounding position of the National Association of Real Estate Boards, in regard to war housing, was reported in newspapers just prior to the announcement of the new housing set-up. This association made public a resolution that, 'Housing for war workers built with public funds be temporary in character with minimum facilities essential to a healthful life for war workers, and such housing be erected on the basis that it shall be removed or disposed of in accordance with the wishes of the local community as soon after the conclusion of the War as possible.'"

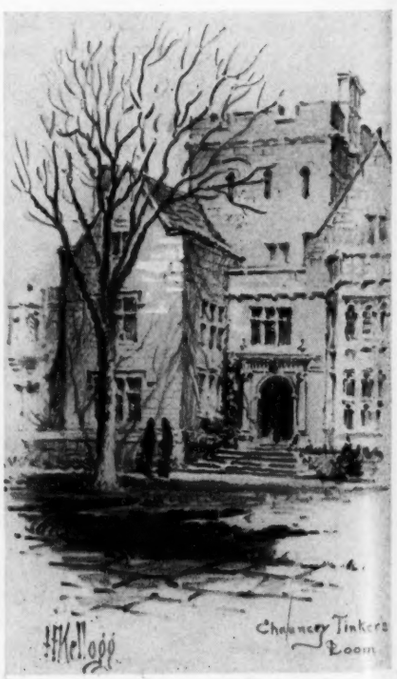
In justice to N.A.R.E.B. and architects who appreciate the privilege, and underlying basic advantages, of learning to live with reputable and nationally recognized associations, there is considerable merit in the real estate proposal.

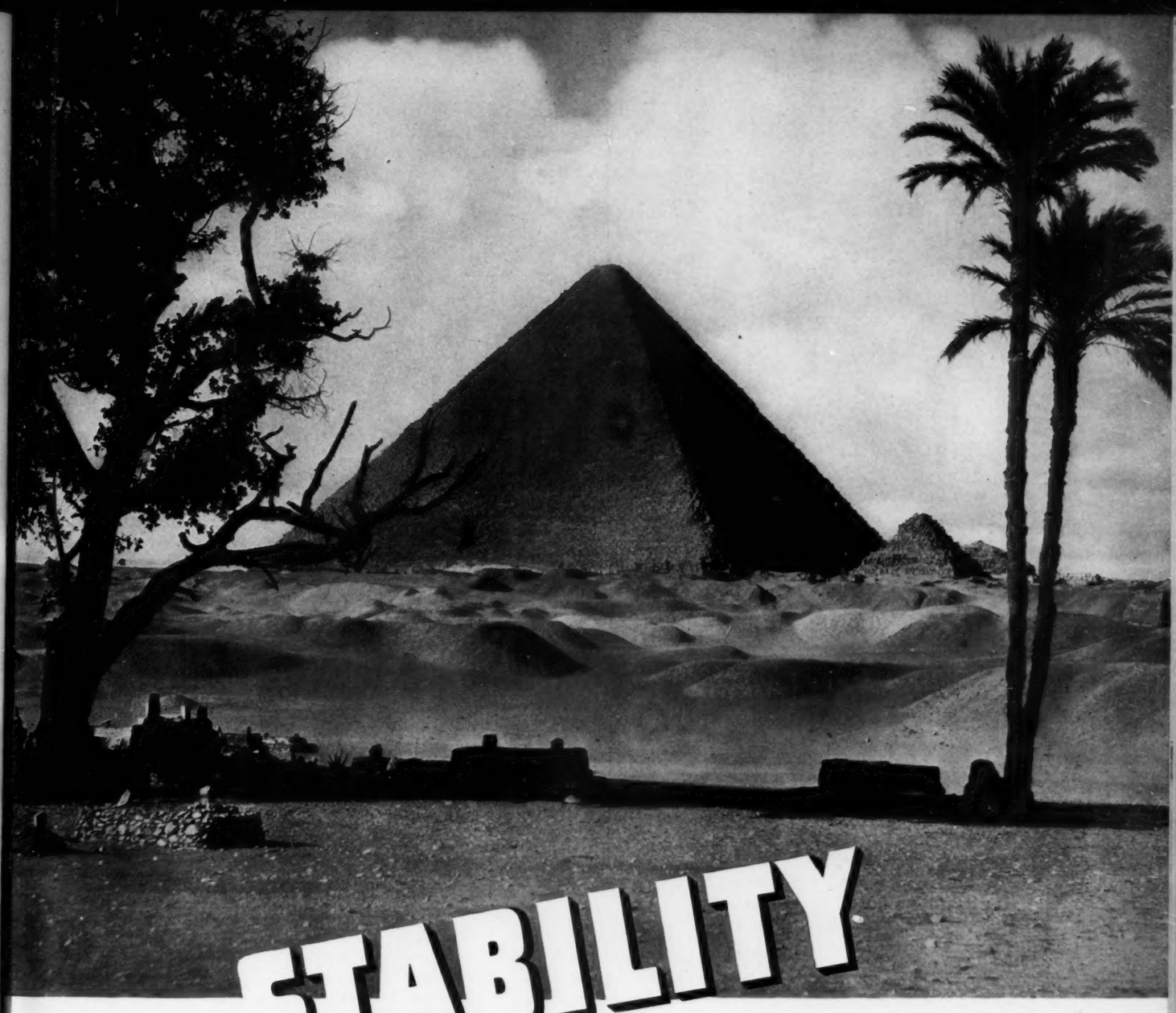
The portion of the proposal, "shall be removed or disposed of in accordance with the wishes of the local community," is the spirit of the proposal missed by PENCIL POINTS.

One can readily see many communities, in which the housing is being placed, suffering from their existence after the boom of war industry is finished. It is not necessary to argue the points pro and con relative to the need of housing. But imagine the effects of such housing on communities where, after the war, the industrial boom is deflated and the housing need disappears.

We are all appreciative of the underlying effort of housing in

Examples of travel sketching are the five drawings on this page, executed by Harold Field Kellogg, Boston architect, while at Oxford, England, a number of years ago. The drawings were made on tinted cardboard with a soft pencil, and touched up on the highlights with Chinese white and a touch of blue. In describing his trip, Mr. Kellogg said: "I was in Oxford at the time for Harvard College. Here, at their request, I was studying the quadrangle system later adopted. I had the pleasure of picking up, in the attic of an old bookshop, plans of all the college buildings and presenting them later to Harvard"





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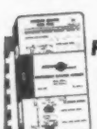

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raising the standard of living conditions. Architects are appreciative of the opportunity to derive commissions from government housing; but, what of its ultimate influence? What delay is placed upon individual initiative for home ownership and for private finance of housing? What, conclusively, is the final effort of the architectural profession? To work for the government or to work for private and local capital?

(Editor's Note—*No, no, Cousin William, we did not miss, or quarrel with, the portion of the N.A.R.E.B. proposal reading "in accordance with the wishes of the local community." We believe very thoroughly in local self-determination. What we object to (as you should very well know) is the proposed restriction of public housing for war workers to "temporary" types. This thought was certainly conveyed by the resolution as reported. If the N.A.R.E.B. recommendation were followed,* no permanent housing could be built *for war workers, to be used later as peacetime housing. We still contend that the decision between temporary and permanent types should be based on the conditions surrounding each project. Isolated munitions plants not likely to be useful after the War call for housing that can be taken down or moved elsewhere. Localities of permanent business and industrial activity, however, call for housing that can be used over a long period and which can, after the War, enable the elimination of many privately profitable slums.*)

IN THIS ISSUE

The penetrating critical discussion of wartime housing that seems to be all too typical, written by *Albert Mayer* for this issue, is the result of a recent inspection tour made by this distinguished architect. As an authority on site planning and large-scale building, Mayer was encouraged by the Editors to speak out frankly. This he has done. It is quite likely that there are readers who will disagree with Mayer's findings—and we extend the same invitation to them. *Speak out if you have something to say!*

As Architect and Town Planner, Mayer designed Fort Greene Houses, Bellmawr Housing for Mutual Defense Homes Division, and New Rochelle public housing projects; and as Consulting Architect he was responsible for many of the best features of New Haven Housing Authority's projects. He also has served as Consultant to the USHA, FWA, and New York State Housing Division. He is a member of the Committee on Post-War Housing, of the National Association of Housing Officials; and a Director of the National Public Housing Conference. He edited the special housing issue of *Survey Graphic* and has contributed to the *New York Times, American City, Architectural Forum,* and a number of weekly periodicals.

Alden B. Dow, whose residential work is discussed in this issue by *Talbot F. Hamlin* and presented as the eighth in our series, "The Architect and House," is a native of Midland, Michigan, where he conducts his architectural practice. He received his early education in Midland schools, then attended the University of Michigan, School of Engineering, before studying architecture at Columbia University, where he received his B.Arch. in 1931. This was followed by six months at Taliesin, Wisconsin, with *Frank Lloyd Wright,* and by travel in Japan in 1923, and in Europe in 1926 and 1928.

He is a registered architect in Michigan, Texas, and Illinois, and a member of the A.I.A. and Michigan Society of Architecture. His professional honors have included the *Diplôme de Grande Prix* for Residential Architecture, given at the Industrial Exposition in Paris, 1937. He also holds U. S. patents on Unit Cinder Blocks and Plastic Building Units. Last November, his firm was incorporated as Alden B. Dow, Inc., and a second office was opened in Houston, Texas.

The largest job now in the office is a new town on the Gulf Coast in the vicinity of a great industrial expansion. This townsite, known as Lake Jackson, is in the heart of a forest of oak and pecan trees and it is being thoughtfully developed to become a beautiful showplace.

In discussing his own work, Dow comments that his "thoughts are primarily analytical" and urges upon architects that they "create a theory that the public can understand: in other words, a *common language.*" In a recent letter to the

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Editors he said of his development:

"As long ago as I can remember, my favorite dreams have been about architecture. My father argued that architecture was *no profession!* To him, any line of work that relied upon personal feeling was undeveloped, unorganized and, therefore, not a profession. This did not mean that he was lacking in appreciation of individual ability or talent; he believed that, due to lack of organization, talent was not given its proper importance.

"Not until my first project in school did I begin to understand him. There I was compelled to use meaningless forms and peculiar combinations of them while the idea as a whole was disregarded. I was told that this curve was *more beautiful* than the other and this color combined with that one was *disagreeable;* but reasons were never given.

"It is a tragedy that architects, painters, sculptors and composers prefer to have us believe their creations are carelessly plucked from the clouds. They have even tried to sell an art based upon lack of reason or intelligence. All of this has greatly hampered their development because reason is the only basis for growth and the only constructive basis for salesmanship.

"Today, I do nothing I cannot reasonably explain, at least to myself, and I believe this is the chief reason why I have many clients who were once confirmed traditionalists living today in houses that have little traditional form.

"Some may say this is the attitude of a cold scientist and not of an artist. My reply is that in this age the artists' job is to put the finishing touches to science; in other words, use science as a tool. I do not mean that individual ability or talent is not necessary. Ability and a desire to do will always be fundamental requirements of the artist.

"Architecture, as every human effort, starts as a necessity, is refined as an art, and organized as a science. When the effort reaches the scientific stage it begins again as an art.

"I believe real greatness in architecture will not come until we enter the scientific stage. We must first realize, however, that creations or inventions are never accidents, but always products of reasoning. When we accept this fact, then the great job for our profession will be to *record* the reasoning processes at work and to *organize* them into a science of architecture."

WITH DIXON'S TYPHONITE ELDORADO

TECHNIQUE USED

Six *Typhonite* Eldorado pencils were used, ranging from a 4H for the distant Cathedral spire to a 3B for the foreground building. The problem of making the three spires assume their proper relationship was solved by using three distinctly different degrees of pencil, and by combining flat strokes with sharply defined detail.

THIS WAS COVENTRY . . .

Generations to come will never forget what the Germans did to this picturesque little town November 14th. *On that moonlit night, wave after wave of bombers—*500 *strong—dropped over a million pounds of incendiary bombs, leaving Coventry a roaring inferno. Here Samuel Chamberlain's* Typhonite *Eldorado portrays Coventry as it will be long remembered. Another in a series brought to you by*

Pencil Sales Department, Dept. 167-J5

JOSEPH DIXON CRUCIBLE COMPANY, JERSEY CITY, NEW JERSEY

HERE, THERE, THIS & THAT

DESIGN ACADEMY HONORS ARCHITECTS

Twelve architects were recently elected associate members of the National Academy of Design, New York. They represent the largest number of associates added to this class of membership since the Academy, one of the oldest organizations of artists in America, was founded 116 years ago. The new associate members are:

Archibald Manning Brown, New York, architect member of the Art Commission of the City of New York, who recently completed designs for the proposed Harlem River Houses as well as the Chelsea Houses.

John Walter Cross, New York, designer of the Federal Building in New York, and the new Tiffany Building in New York.

Thomas Harlan Ellett, New York, designer of the Terrace Club at the New York World's Fair, and the Military Chapel for the American Battle Monument at Thiaucourt, France.

Eric Gugler, New York, a mural painter and sculptor as well as an architect, who is now working on the rehabilitation of the Subtreasury Building in New York. Mr. Gugler also designed the Business Administration Building at the New York World's Fair.

Edward Shepard Hewitt, New York, emeritus member of the Architectural League of New York.

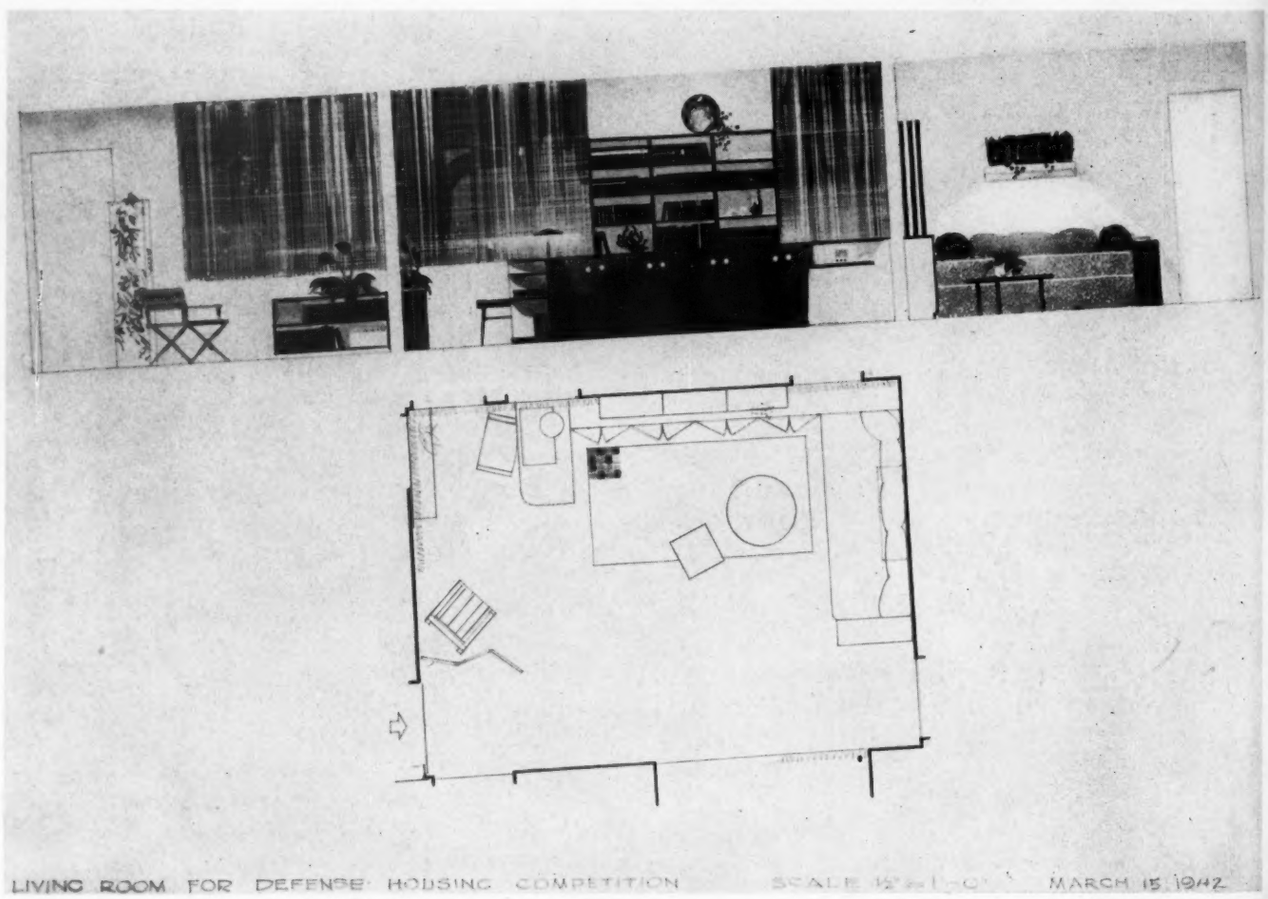
William F. Lamb, New York, designer of the Empire State Building, the Hollander Building, and the Lilly Dache Building, New York.

Harrie T. Lindeberg, New York, noted for his work on low-cost housing, and the design of the United States Legation in Helsinki, the embassy in Moscow, and the Shanghai consulate.

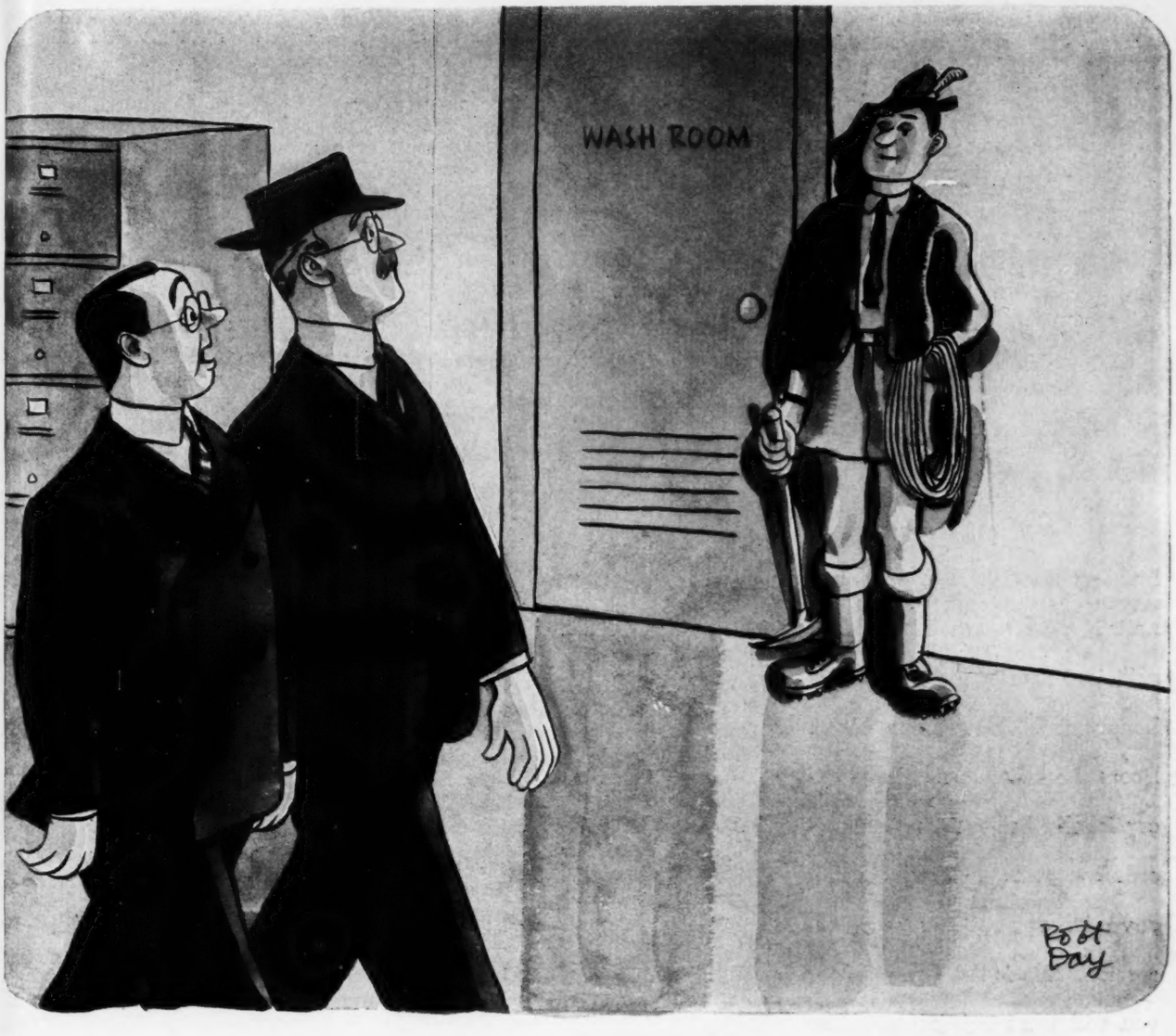
John Gaw Meem, Sante Fe, N. M., whose work includes the Colorado Springs Art Center, and buildings for the University of New Mexico.

William Graves Perry, Boston, who reconstructed Colonial Williamsburg in Virginia.

(Continued on page 48)



Decorating and furnishing a four-room, low-cost defense housing unit on a budget of $466.21 won for John E. Maier, Brooklyn, N. Y., the first prize of $250 and a Defense Housing Medal in the recently-concluded National Competition for the design of interiors in defense housing units. The competition was co-sponsored by "Interior Design and Decoration" magazine, The American Institute of Decorators, and the Public Buildings Administration. Reproduced here is Mr. Maier's suggested treatment of a living room unit, equipped with modern furnishings. (See list of prize winners in April, 1942 issue, page 68.) Gladys Miller, interior designer and consultant on defense housing, commended the competitors for the interest shown in the problem of decorating low-cost dwellings, and saw promise in the competition of many contributions to this new field. The entries, embracing complete furnishing and decorating schemes for four rooms — living room, dining alcove, and two bedrooms—appeared adaptable to the low-cost homes. Lowest cost of a complete furnishings scheme entered in the competition was $246.51; highest, $1200. Approximately 500 drawings were submitted in the competition



"We need him to get around to the fixtures and things"

The case above is a little on the extreme side, of course.

But it's a fact that many washrooms, particularly the larger ones, aren't arranged for the convenience and comfort of the user, or for economical maintenance.

That's where the Scott Washroom Advisory Service can be of definite help.

Whatever your washroom-planning problems—fixture arrangement, traffic flow, sanitary needs—this free service provides technical data for planning. Trained staff members are always available for consultation. You'll find this assistance invaluable in designing washrooms that combine maximum efficiency and economy in use.

For details, and for a set of Don Graf Data Sheets on washroom planning, write Scott Paper Company, Chester, Pa.

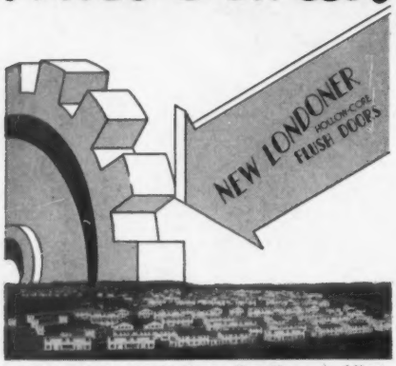
See our listing in Sweet's Catalog

Trade Marks "Soft-Tuff," "ScotTissue," "Washroom Advisory Service" Reg. U. S. Pat. Off.

SCOTT WASHROOM ADVISORY SERVICE

offered by the makers of the famous new "Soft-Tuff" ScotTissue Towel and ScotTissue Service Roll

Price-Geared



Middletown Housing Project. Geo. Howe, Architect

FOR *Defense* BUILDING!

The fact you are designing or building small homes, or home-units in defense areas, should be sufficient reason for using New Londoner Hollow-Core Flush Doors. New Londoners have exceptionally brilliant service records everywhere — records that reveal low cost-per-years-of-service. This is the type of door you will want to recommend so be sure to get the story of New Londoner Hollow-Core Flush Doors. You'll find it interesting as well as enlightening. Send for this information today.

AMERICAN PLYWOOD *Corporation*
NEW LONDON, WISCONSIN

PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen, and Specification Writers

The publications mentioned here are 8½ x 11 unless otherwise noted, and will be sent free upon request to PENCIL POINTS *readers by the firms issuing them. When writing, please mention* PENCIL POINTS.

SASH OPERATORS — Various types of screw thread sash operators for opening and closing sash in offices, hospitals, churches, banks, etc., are illustrated in a 28-page catalog from Lord & Burnham Co., 420 Lexington Ave., New York. The methods for operating inaccessible sash, transom sash, vertical and horizontal groups of sash, are also described. Schematic drawings, dimensioning data, and specifications are included.

CAMOUFLAGE PAINT—The development of Infray, a new infra-red-reflecting, heat-reflecting paint, is presented in an 18-page booklet, "Target for Tomorrow," issued by The Arco Co., Cleveland, Ohio. The paint may be used on buildings, storage tanks, roofs, windows, etc. Color chips show the seven colors in which the paint is available.

PLYWOOD STAIN — Breinig Brothers, Inc., Third & Grand Sts., Hoboken, N. J., have issued a 4-page folder on Firzite, a pre-finishing treatment for fir plywood. Firzite is said to provide an even texture on plywood which enables paint materials to "take" evenly on the surface.

Also published by the same firm: 4-page reprint describing the various wood finishes and paint specialties made by the firm, and their use on various types of construction.

PIPE CATALOG — The wire-bound, 60-page, 1942 general catalog issued recently by A. M. Byers Co., Pittsburgh, Pa., describes the complete line of wrought iron, tubular, and hot rolled products made by the firm. Many of the uses for the products are discussed in individual publications, available on request. Tables provide technical information on the various types of pipes available.

DECORATION MANUAL — The new 36-page manual, "Color Keys to Decoration," from United States Gypsum Co., 300 W. Adams St., Chicago, simplifies the problem of selecting colors for room decoration. It is printed in color, contains 111 rooms and settings, lists the rules for making walls, ceilings, and trim harmonize with draperies and furniture. Dozens of cases are studied, and the solutions given should be of interest to architects, decorators, and others confronted with decoration problems.

REDWOOD CONSTRUCTION—A new 8-page bulletin, "Stepping Up Production with Redwood," has been issued by California Redwood Association, 405 Montgomery St., San Francisco, Calif. Prepared specially for those doing work for the government or for industrial expansion, the bulletin shows the application of redwood in the construction of camps, cantonments, factories, housing projects, etc.

ROOF VENTILATOR—An appropriately indexed file folder (A.I.A. File No. 12-K) from The Swartwout Co., 18511 Euclid Ave., Cleveland, Ohio, contains Bulletin 214 (24 pages illustrating and describing the firm's line of roof ventilators for industrial and commercial buildings), and Bulletin No. 215, a 16-page comprehensive manual including a guide for estimating building ventilation and roof ventilator requirements. Instructions for installing Swartwout ventilators on various standard and special types of roofs are included.

INDUSTRIAL LIGHTING DATA—General Electric Co., Nela Park, Cleveland, Ohio, has issued a new publication to keep the architectural profession better informed about modern light sources and lighting techniques. The loose-leaf book discusses the many lighting fixtures available for all types of industrial construction, has a section on supplementary lighting recommendations, and a section devoted to case studies of twelve typical, good lighting installations. Pages may be easily removed for filing in an A.I.A. file.

(Continued on page 42)

NINE VOLUMES OF IMAGINEERING

THESE NINE BOOKS are designed to help all men, everywhere, do the Imagineering that improves methods of production and speeds delivery to our fighting men of all war materiel made of aluminum.

HERE AT ALCOA, Imagineering has enabled us to double production and to be well on the way to tripling it, in an amazingly short time. And still the expansion goes on. Swinging immense new plants into top volume at top speed;

building again, and manning that new capacity efficiently . . . This is Imagineering at work for the war.

WE'RE BREAKING RECORDS by sheer determination backed by know-how.

YOU'RE DOING THE SAME. Perhaps your men, many of them new to the ways of working with aluminum, can help you get even more speed through the know-how these books contain.

IN THE DAYS when we made only a driblet of Alcoa Aluminum Alloys, compared to the great flood we are now pouring into the war effort, our engineers could counsel with you personally on fabricating procedures. Today many of these men have been brought back to our plants to join the drive for production. From these books you can get much of the know-how our men used to bring you personally.

OUT OF THESE PAGES, too, will come the exciting Imagineering of the future. Many of the products you will create to meet the new competition, *as well as* millions of jobs for our boys as they come home, will stem from that Imagineering.

Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.

★ SO MUCH SO SOON ★

ALCOA ALUMINUM

ALCOA ALUMINUM

MEET THIS DEMAND BY SPECIFYING "KINNEAR"!

You can speed up traffic, step up efficiency, and save labor-time for war production plants by specifying Kinnear Motor Operated Rolling Doors. They can be opened and closed at the touch of a button — from any number of convenient points. They also save valuable floor and wall space because they open upward, coiling compactly above the lintel. Their rugged interlocking-slat construction assures long service with low maintenance and protects against fire, intrusion, sabotage, wind, weather and accidental damage. Built any size for any doorway. Write for details or recommendations, or see Sweet's. The Kinnear Manufacturing Company, 1900-20 Fields Avenue, Columbus, Ohio.

KINNEAR
ROLLING DOORS

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 40)

CONSTRUCTION GLUES—I. F. Laucks, Inc., 911 Western Ave., Seattle, Wash., has begun publication of "Construction Glues", an informative periodical designed to bring to the building industry news on improved construction methods with glue. Contents of the first issue included detailed information on construction glue techniques—specifically as they pertain to laminated arches; the use of construction glue in erecting prefabricated housing units; other innovations in the field of wood and glue construction.

WALLHIDE PAINTS — Color chips of the fourteen paints approved for the restoration of Colonial Williamsburg interiors are contained in 12-page, 5 x 10 folder from Pittsburgh Plate Glass Co., 632 Duquesne Way, Pittsburgh, Pa. Color reproductions of several interiors are also included.

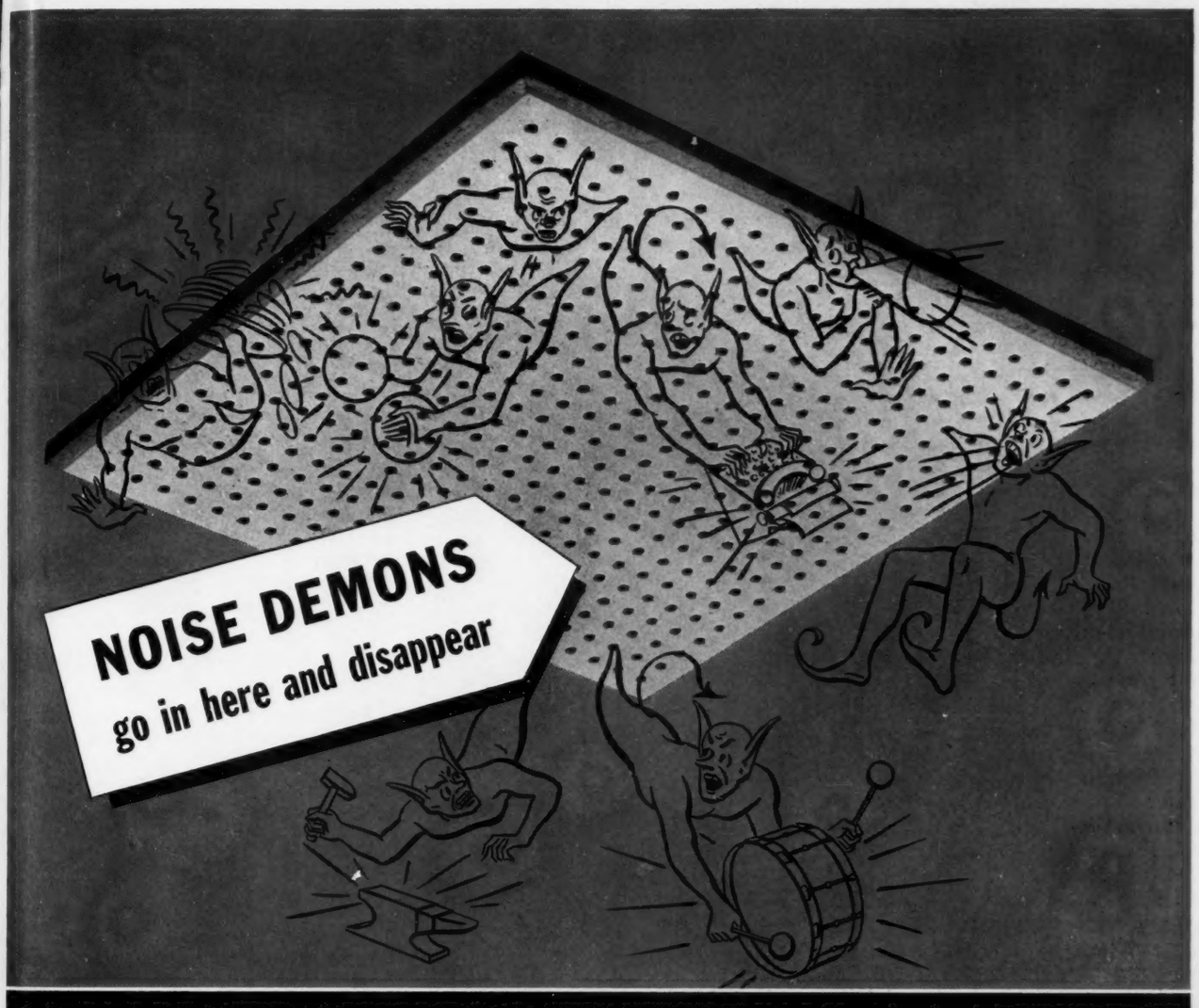
DOUGLAS FIR DOORS—Standard designs and specifications adopted by the Fir Door Institute, Tacoma Bldg., Tacoma, Wash., are contained in Catalog No. 2000, a 56-page catalog. Included are illustrations and descriptions of stock Douglas Fir house doors, cupboard doors; Tru-Fit Douglas Fir entrance doors; panel and sash design Craw-Fir-Dor for garages.

Also published by the Institute: 16-page catalog (A.I.A. File No. 19-E-12) on Tru-Fit Douglas Fir stock doors; 8-page catalog on Craw-Fir-Dor overhead-type garage door; 8-page catalog on the Sav-A-Space sliding door for home, office, hotel, and apartment use.

CORK INSULATION — A discussion of design standards for meat packing plant insulation is contained in an 8-page catalog from Armstrong Cork Co., Lancaster, Pa. Typical uses of corkboard in the meat packing industry are also presented.

FLOORING — Low cost floors for defense houses are described in a 24-page, 10¼x13½ catalog from E. L. Bruce Co., Memphis, Tenn. Illustrated are typical installations of the firm's Streamline flooring, a factory-finished hardwood flooring available in various woods, sizes, finishes, grades, and lengths.

(Continued on page 44)



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THE easy, economical way to defeat the noise demons is to trap them in a ceiling of Armstrong's Cushiontone. This highly efficient but low-cost acoustical material has nearly five hundred sound-absorbing holes to the square foot, giving it a noise reduction coefficient as high as 70%. Hospitals, schools, offices, restaurants, and stores—every kind of building where groups of people work or play—need this freedom from the demons of noise. The cost of a Cushiontone ceiling is soon repaid in the permanent benefits of greater efficiency, reduced clerical errors, and better health.

ACOUSTICAL CORRECTION

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Cushiontone is easily cleaned. It can even be repainted, when necessary, without affecting its acoustical efficiency. The attractive ivory coloring provides smart decoration, plus the excellent light-reflection factor of 73%.

Cushiontone is a good insulator against extremes of heat and cold—keeps rooms at comfortable, more even temperatures summer and winter—and helps to keep fuel costs at a minimum.

See *Sweet's*, and write today for a free sample and full information. Armstrong Cork Company, Building Materials Division, 1227 State Street, Lancaster, Pennsylvania.

Two thicknesses, two unit sizes, and the attractive ivory coloring make Cushiontone adaptable to almost any application. It's quickly erected in old buildings or new.

ARMSTRONG'S CUSHIONTONE

MADE BY THE MAKERS OF ARMSTRONG'S CORKOUSTIC

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 42)

AIRPORT LIGHTING—Typical layout plans with C.A.A. recommendations are given for airports with runways of from 1500 to 4500 feet in the new 42-page Bulletin B-3046 from Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa. Photos and brief descriptions of all necessary floodlights, etc., are included with references to literature covering each item. Full-size black and white photostats of typical lighting wiring diagrams are included for the four airport classes.

PRESSURE-TREATED LUMBER—The Wood Preserving Division, Koppers Co., Koppers Bldg., Pittsburgh, Pa., has issued a 20-page booklet, 6 x 9, which describes the simple rules for estimating the value of pressure treatment in particular installations. The booklet describes the processes involved in pressure-treating wood.

Other booklets from the same firm: 16-page catalog describing the construction steps involved in the Tarmac surfacing of roads; 36-page catalog outlining specifications for coal tar pitch roofing, water-proofing, dampproofing, flashings, roof insulation, and including flashing and roofing details.

A number of two-page and four-page catalog sheets are also issued by the firm. All the sheets give information on the application of Kopper's products to various installations, as well as specifications and photos of typical installations. Sheets are available on steep roofs built with coal tar pitch, dampproofing, pressure-treated wood for low cost housing, membrane waterproofing, waterproofing and gasproofing for sewage disposal plants, tar-base paints, water-cooled roofs.

PAINTING SPECIFICATIONS — Available to architects only is the sixth edition of the Specification Manual issued by Pratt & Lambert, Inc., 75 Tonawanda St., Buffalo, N. Y. Detailed specifications are given for painting, varnishing, and enameling all types of interiors, and exteriors. The 7½ x 10½ book (A.I.A. File No. 25-C) has 48 pages.

KITCHEN CABINETS — Its new line of kitchen cabinets, built especially for installation in Victory housing projects, is described in an 8-page folder (A.I.A. File No. 35-C-12) available from Kitchen Maid Corp., Andrews, Ind.

REVOLVING DOORS—Suggested designs and specifications for all types of revolving doors is contained in a filing folder (A.I.A. File No. 17-A-1) available from the Revolving Door Division, International Steel Co., Evansville, Ind. Though the firm has discontinued the manufacture of revolving doors of almost every type unless it has a high priority rating, it is continuing to distribute literature for the duration to aid architects in planning peacetime programs.

TRUSCON PRODUCTS — The 1942 edition of "Truscon Steel Building Products" is a spiral bound, 80-page catalog, containing specifications, installation details, structural design drawings on steel window products, steel doors, and such building needs as reinforcing bars, plaster bases, steel joists, etc.

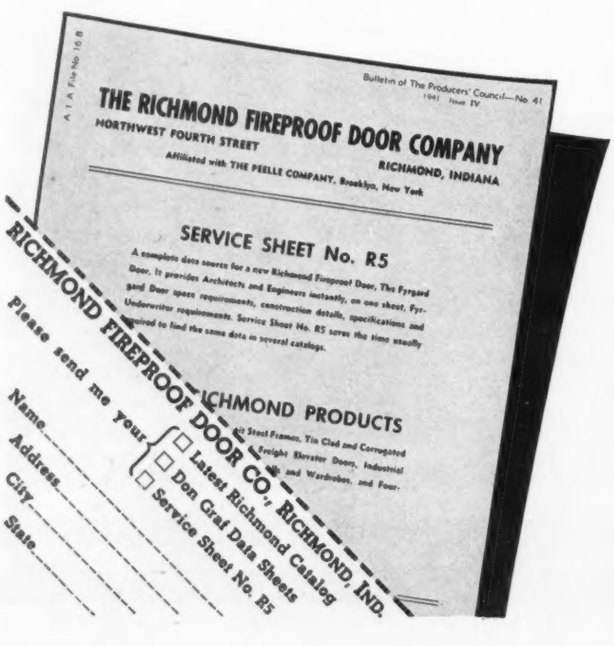
Also published by the same firm: 16-page catalog on Ferroglas, a type of industrial construction which incorporates insulation, sound absorption, light reflection, and fire and shatter resistance as its features. Typical construction details are shown.

The use of light steel framing for rapid erection of all types of buildings is discussed in a new 20-page manual. In addition to illustrating typical installation procedures, the manual has a series of plates on floor, roof, window, and general framing details.

ASPHALT SHINGLE ROOFING —A four-page folder describing its Timbergrain asphalt shingle roofing may be had from The Ruberoid Co., 500 Fifth Ave., New York. Shown in actual color are four examples of Timbergrain shingles.

CABINET SHOWERS—Full color illustrations of its Weisway cabinet showers for defense home units are shown in a new 8-page catalog from Henry Weis Mfg. Co. Inc., Elkhart, Ind. Blueprint-type installation diagrams, and specifications, are included.

(Continued on page 46)



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SERVICE SHEET R-5 IS A COMPLETE DATA SOURCE FOR A NEW IMPROVED DESIGN OF FIREPROOF DOOR, THE FYRGARD DOOR.

THIS SHEET Gives space requirements, large scale construction details, specifications and Underwriter requirements.

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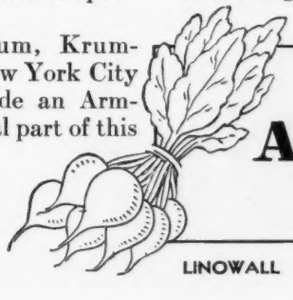
"Now look what design has done for a delicatessen!"

GOOD DESIGN has done plenty! It has lifted this New York City delicatessen out of the realm of dingy corner stores. It has given this shop life and sparkle, the kind that helps to pull in extra trade. And it has done this by making the floor a part of the sales picture. The success of the plan is due in no small part to this significant fact:

Armstrong's Linoleum was specified for the floor!

Designers Gruenbaum, Krummeck and Auer, of New York City and Los Angeles, made an Armstrong Floor an integral part of this delicatessen's entire interior scheme. They used this highly versatile floor to set off the unique salad bowl display and to conform to the smart, circular shape of the sales room. As a result, the proprietors of the Old Denmark Delicatessen have a floor that is not only salesworthy and attractive, but one that will retain its good looks for a long time to come, too. For Armstrong's Linoleum, if properly maintained, provides your client with a floor that will give years of service.

Next time you plan a commercial interior—consider the extra advantages of Armstrong's Linoleum. You'll find it adaptable to almost any floor problem you may have and, at the same time, easy and inexpensive to install. See *Sweet's* for full details, or write Armstrong Cork Company, Floor Division, 1213 State St., Lancaster, Pennsylvania.



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18 DEGREES—& 6 DEGREES WITH CHISEL POINT LEADS

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 44)

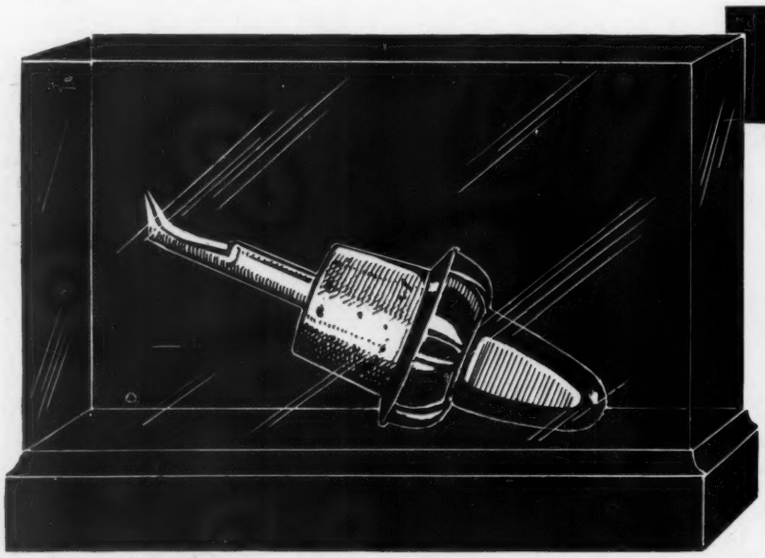
TIMBER STRUCTURES—"Typical Designs of Timber Structures", recently published by the Timber Engineering Co., 1337 Connecticut Ave., Washington, D. C., is an 11 x 17 catalog containing 48 detailed drawings showing actual timber engineering problems. The typical plans cover 14 different types of timber design such as trussed rafters for housing projects; trusses for hangars, factories, and markets; grandstands, distillery racks, bridges, towers. Each group is introduced by a photo of an actual structure in which that type of design was used, and an explanation of its use. Handy tables for use in timber design are also included. Loose-leaf binding permits any of the pages to be removed for convenient use on the drafting table. Copies will be sent free to any registered architect or engineer.

PAINT MANUAL—Jones-Dabney Co., Louisville, Ky., has issued a comprehensive manual describing the specifications which have been issued by the Government in regard to lacquers, varnishes, enamels, and synthetic resins used in the production of military equipment and supplies. Entitled "War Specification Products," the manual cites and identifies the specifications, lists the various issuing bureaus, and explains the various applications.

BUILDERS' SUPPLIES — A 24-page catalog, and 8-page price list, from Tamms Silica Co., 228 N. LaSalle St., Chicago, illustrates and describes the firm's line of paints and other builders' supplies.

LAMINATED CONSTRUCTION — The use of laminated wood, weight-bearing members to replace steel in many types of construction is described in a 4-page folder (A.I.A. File No. 19-M) issued by Casein Company of America, 350 Madison Ave., New York. Specifications for gluing of laminated members and details of typical assemblies are included.

Also published by the same firm: Two-page sheet, Technical Bulletin A-C-1, which discusses the waterproof gluing of laminated beams and arches.



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Material shortages *may* make it difficult for us to continue to supply the famous Higgins Drawing Ink Stoppers with dipper fillers. As a precaution we advise you to salvage and keep the ones you have and are now getting. Order a good supply of Higgins American Drawing Inks in ¾ oz. bottles containing stoppers equipped with these pen fillers today.

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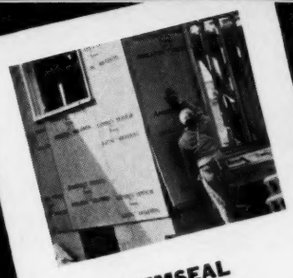
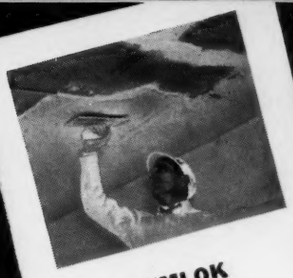
DOUBLE PURPOSE INSULATION



TEMSEAL SHEATHING

Permanent insulating efficiency in combination with adequate bracing strength.



TEMLOK LATH

Dependable insulation and excellent plaster base in one economical material.

TEMLOK DE LUXE

Insulation plus interior finish. Factory-colored panels, planks, and boards.

See SWEET'S for complete specifications

Armstrong is Insulation Headquarters

Forty years ago Armstrong pioneered the modern use of insulation. Long experience, coupled with constant scientific research, is reflected in the quality and practicability of Armstrong's Temlok. Write for free samples. Armstrong Cork Company, Building Materials Division, 911 Concord Street, Lancaster, Pennsylvania.

(Continued from page 32)

William Platt, New York, designer of the Central Mall and the Pylons of Light at the New York World's Fair.

James Kellum Smith, New York, president of the American Academy in Rome, and consulting architect for Johns Hopkins and Northwestern universities.

Clarence C. Zantzinger, Philadelphia, former director of the Pennsylvania Academy of Fine Arts.

MORE ARCHITECTS WANTED

Architects are being sought to fill Federal positions in the war program, according to a recent announcement from the United States Civil Service Commission, Washington, D. C. Optional fields of architecture in which persons may qualify are design, specifications, and estimating. Salaries range from $2,000 for junior architect to $3,200 a year for associate architect. Sufficient eligibles at these grades to meet anticipated government needs were not obtained from the architect examination announced a year ago. No written test is required. Applicants' qualifications will be determined from their experience and training.

Experience as draftsman, involving routine drafting or developing of plans not requiring basic original investigations or developments, will not be considered as qualifying. There are no age limits.

Applications will be accepted at the Commission's Washington office until the needs of the service have been met. Forms for applying may be had from first and second-class post offices or direct from the Commission.

A. I. A. CONVENTION

A tentative program has been announced for the seventy-fourth annual meeting of the American Institute of Architects and its affiliated state organizations, to be held at the Hotel Statler, Detroit, Michigan, June 23-25.

Keynote of the three-day meeting will be the discussion of four topics of professional interest — Existing Situation of the Profession, Youth Movement and Unification, Post War Planning and Post War Program, and Discussion of the Education Program.

A provocative discussion of the subjects to be discussed at the convention will be included in the June issue of PENCIL POINTS.

USO BUILDINGS

United Service Organizations buildings which would utilize local construction materials, and serve as community centers after the war, have been designed by fourteen architectural students of Cooper Union, New York. Basic specifications for the project were submitted by *Ely Jacques Kahn* and *Robert Allan Jacobs,* architects for the first USO building.

One student, *Lowell Cady,* designed a building to harmonize with the landscape of the Ozark mountains. Cady designated that the exterior be constructed of local brown stone and white oak, with a roof of cypress shingles. Vertical sycamore paneling and glass block were selected for the interior.

Another plan, by *Harold Soled,* specified concrete for a building which he proposed for one of the public parks in Brooklyn, N. Y. *Phyllis Hoffzimer* designed a USO center for the Westchester suburbs of New York City, and chose concrete in combination with glass blocks.

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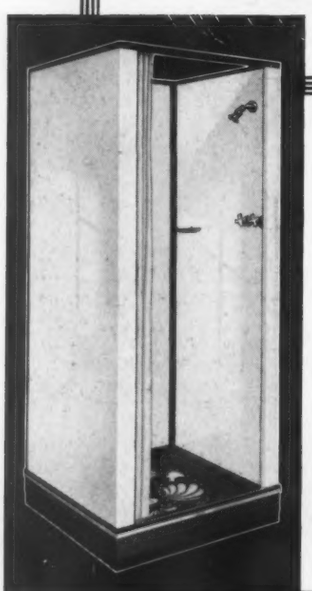

● Preference ratings can be obtained readily for the use of Weisway Cabinet Showers for civilian defense housing and remodeling, as well as for industrial and military purposes. These leakproof, self-contained baths are authorized under the critical materials list and may be shipped on priorities under the recent WPB limitation order on plumbing equipment.

We are in a position to make immediate shipment on most models and sizes. Delay will be prevented when orders are accompanied by priority certificates or endorsements (A-10 or better).

Specify Weisways and co-operate with our Nation's war conservation program because these quality cabinets not only serve dependably but *save** in many ways. Detailed information and specifications with new full color booklet, "Weisways for Defense Living Quarters," will be sent without obligation.

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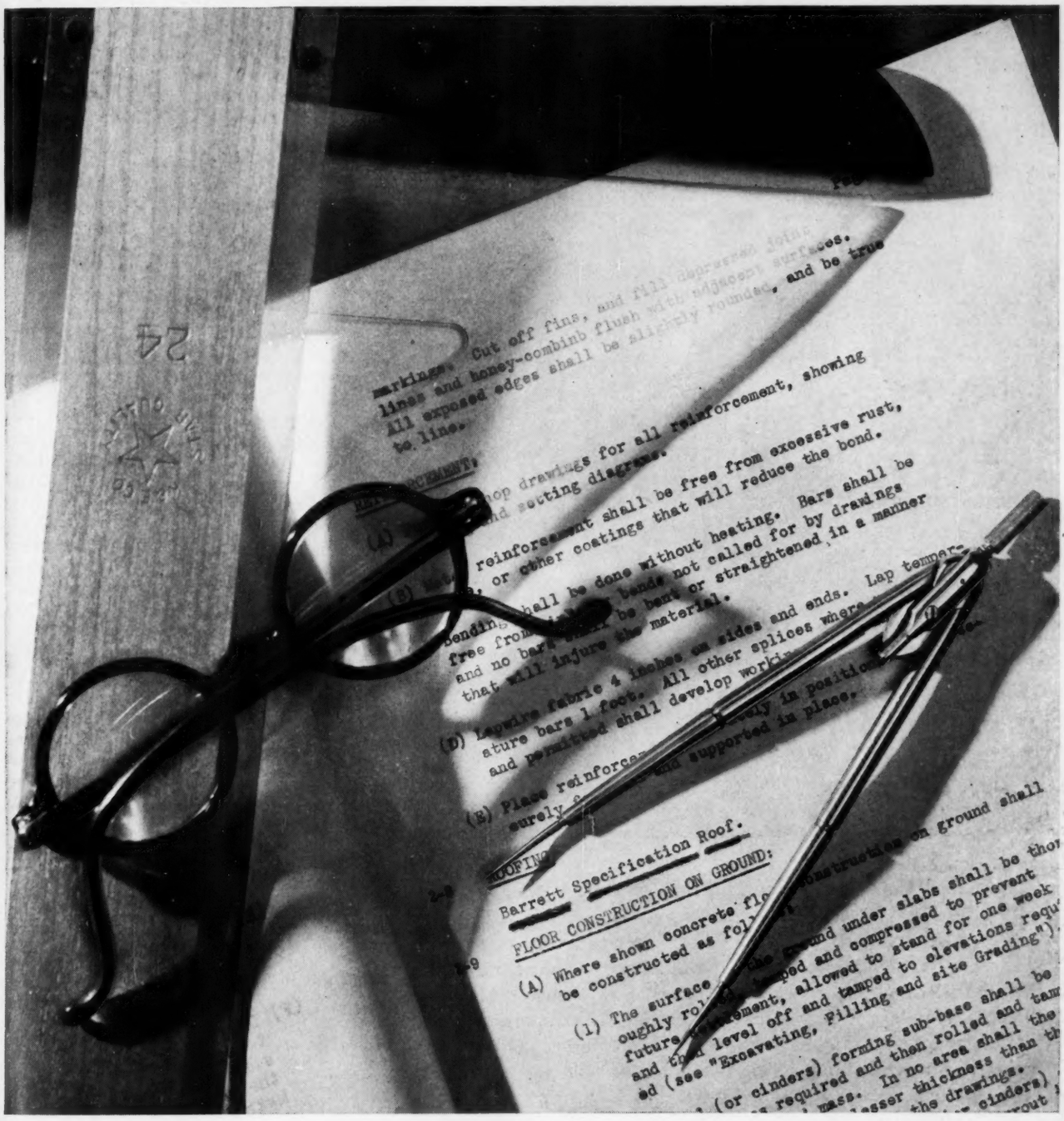
One of the Most Difficult parts of a Building Specification can be written in just 3 WORDS



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Barrett Specification Roof written in building specifications means that the roof you have specified will be constructed of Barrett Specification pitch and felt, applied by a Barrett Approved Roofer, inspected by Barrett experts, and bonded against repairs and maintenance expense for up to 20 years.

In short, it means that you have provided for your client the maximum of dependable roof protection. It means, too, that you have provided against possible delays in vital production lines due to roof failure.

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TO SPEED HOUSING

John B. Blandford, Jr., National Housing Agency administrator, has announced plans for decentralization of Federal housing operations to speed construction for war workers. The decentralization will be accomplished by setting up ten regional offices, and possibly ten sub-regions." The regional offices will be established in ten of the thirteen cities where the WPB has offices, but the cities have not as yet been designated. The move was made to shift more responsibility for planning the billion-dollar war housing program to the communities it will benefit.

WHERE ARE THEY?

Unsolicited material returned recently to several contributors by the editors of PENCIL POINTS has been returned by the post-office since it had no record of their whereabouts. In an effort to locate these contributors, PENCIL POINTS is printing their names and last-known addresses, and requests its readers to notify the magazine should they know the present address of the following men:

LeRoy Grumbine, 1216½ Trenton St., Los Angeles, Calif.; *Ernest Jonson,* 126 W. 12th St., New York, and *H. Van Pelt,* 513 Crescent St., Grand Rapids, Mich.

The editors also have on hand an article, "Modern Architecture—A Revaluation," which the author (unknown) may have upon request.

The contributions will be held until August 1, after which they will be disposed of.

PECORA Calking Compound is now on duty in this large hospital building as well as the Nurses' Home. It will be depended upon to render 24 hour service every day of the year for many years to come. No moisture, no dust, no drafts, will be permitted to penetrate joints that have been sealed with Pecora. It will provide weather protection, aid temperature regulation and effect fuel saving. Regardless of heat, cold or moisture, Pecora will retain its permanent elasticity, for when properly applied, Pecora will not dry out, crack or chip.

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PECORA CALKING COMPOUND

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EXHIBITION OF WARTIME HOUSING

An exhibition of wartime housing, arranged in collaboration with the National Committee on the Housing Emergency, opened at the Museum of Modern Art, New York, April 22, and will continue through July 19. It shows by means of graphic and dramatic installations why adequate housing designed by the country's best architects is necessary to help America win the war. New methods for producing such housing with maximum speed and economy according to contemporary design are also presented.

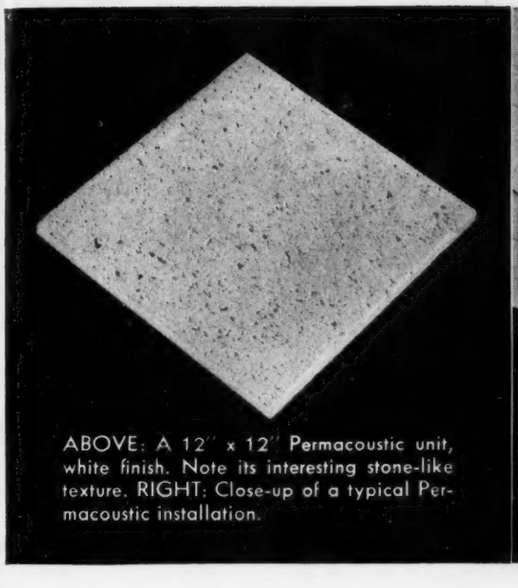
The exhibition tells its story in a series of scenes presented by movie shorts, blown-up photographs, and architectural models. In addition, each scene is accompanied by voices which dramatize the idea of the exhibition scene by scene.

The second half of the exhibition shows how, by intelligent community planning, wartime housing facilities can be converted to peacetime use instead of leaving slums and the empty industrial ghost towns of the last war.

AMERICANA EXHIBITION

Two hundred years of American life are represented by nearly 100 eighteenth and nineteenth century lighting appliances at a current exhibition in the Cooper Union Museum for the Arts of Decoration, New York.

The appliances are arranged in chronological sequence, demonstrating the transformation in design that came with changing needs and the commercial development of illuminating oils. Also on exhibit are a number of architectural sketches by the late *Whitney Warren,* internationally known architect.



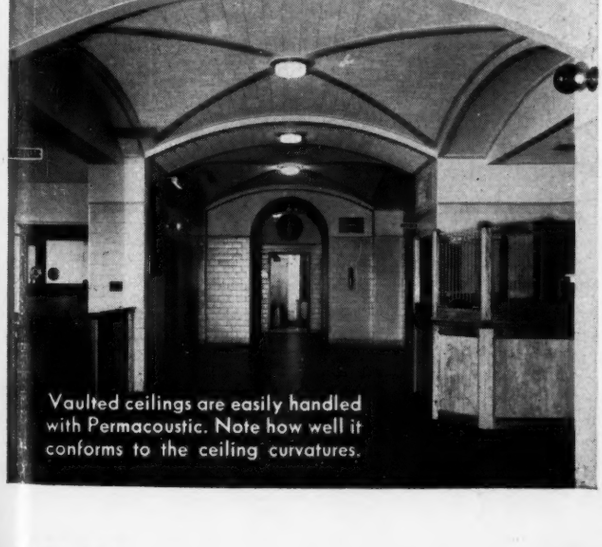
ABOVE: A 12″ x 12″ Permacoustic unit, white finish. Note its interesting stone-like texture. RIGHT: Close-up of a typical Permacoustic installation.

Johns-Manville PERMACOUSTIC

... an economical, ceramic acoustical product that combines an attractive natural texture with high sound-absorbing efficiency

Description: Permacoustic is formed by baking rock wool and clay under extremely high temperatures. It has a distinctive stone-like texture that harmonizes with practically any decorative treatment. Used on walls or ceilings, it forms an interior finish of exceptional beauty and dignity.

Advantages: Attractive in appearance, Permacoustic also provides excellent sound-absorption characteristics. It is mineral in composition, therefore cannot rot and is unaffected by moisture. Permacoustic is fireproof. Little maintenance is required. Cleaning is readily accomplished by conventional methods. Painting will not reduce its noise-quieting efficiency.



Vaulted ceilings are easily handled with Permacoustic. Note how well it conforms to the ceiling curvatures.

Recommended Uses: Permacoustic is an all-purpose, low-cost acoustical material. It is particularly adapted for use in offices, restaurants, schools, auditoriums, etc. Its realistic stone-like texture also makes it ideal for such structures as churches and public buildings.

Application: Permacoustic is easily handled and applied. In most installations, the units are cemented in place directly over the existing ceiling with J-M Acoustical Cement. In suspended ceiling construction, however, each unit is kerfed to accommodate the metal suspension system.

Sizes and Colors: Permacoustic is furnished in units of 6″ x 12″, 12″ x 12″, and 12″ x 24″; in thicknesses of ¾″ and 1″. Standard colors are white and buff. Units may be obtained with either square or beveled edges.

SOUND-ABSORPTION COEFFICIENTS

Tests by the official laboratory of the Acoustical Materials Assn.

Material	Thickness	128 Cycles	256 Cycles	512 Cycles	1024 Cycles	2048 Cycles	4000 Cycles	Noise Red. Coefficient
Permacoustic	¾″	.19	.34	.74	.76	.75	.74	.65
	1″	.23	.44	.71	.68	.70	.73	.65

Light-Reflection Coefficients: Natural White, 73%; Painted, 85%

FOR COMPLETE DETAILS and specification data on J-M Permacoustic and other materials in the complete J-M line of acoustical materials, see Sweet's Catalog, or write for Catalog AC-26A. Johns-Manville, 22 East 40th Street, New York, N. Y.

COLUMBIA HONORS ARNAUD

Dean Leopold Arnaud, of the Columbia University School of Architecture, New York, has been named Ware Professor of Architecture at Columbia. He is the second recipient of the Ware Chair since its establishment in 1929.

Five New York City architects were also named to the Committee of Visitors in the School. The committee acts in an advisory capacity to the faculty, and as a liaison group between the practicing profession and the School. Chairman of the Committee is *Charles Butler.* Other members on the committee include *Arthur Loomis Harmon, Geoffrey Platt, T. Merrill Prentice,* and *Edward D. Stone.*

PRINCETON GETS MEDAL

The 1941 gold medal of the American group of the Société des Architectes Diplômés par le Gouvernment has been awarded to Princeton University for "having the best record of accomplishment in the teaching of architecture on the general principles of the École des Beaux Arts in Paris."

A gold medal and a prize of $50 was awarded to *Glen Paulsen,* of the University of Illinois, as the student who obtained the greatest number of values in the national competitions of the Beaux Arts. *J. C. Tighe,* of the University of Pennsylvania, received the Silver Student's Medal.

SUMMER COURSES AT CRANBROOK

Courses will be offered in Drawing and Painting, Modeling and Sculpture, Design (Architectural and Industrial), and Crafts (Weaving, Metalcraft, Pottery and Ceramics) at the 1942 summer session at the Cranbrook Academy of Art, Bloomfield Hills, Mich. The ten week term will run from June 22 to August 28.

The Academy will have been granted the right to award academic degrees beginning with the summer semester. Candidates will be accepted for the degree of Master of Architecture, Master of Industrial Design, Master of Fine Arts (Painting, Sculpture, Crafts), and Bachelor of Fine Arts (Painting, Sculpture, Crafts, Design).

Requests for application forms should be addressed to *Richard P. Raseman,* Executive Secretary.

GRADUATE COURSE IN INDUSTRIAL DESIGN

The California Institute of Technology, Pasadena, California, as part of its regular program of instruction, is offering a two-year graduate course in Industrial Design. It combines the study of functional design with that of the latest engineering practice, utilizing the possibilities of such new materials and methods as best contribute to the solution of current problems. Upon successful completion of the course, students are awarded a professional degree in industrial design.

A limited number of assistantships are available for the year 1942-1943. Further details may be had from the Institute's registrar.

MANUFACTURERS' DATA WANTED

JOHN G. MILLER, 4230 Courville St., Detroit, Mich., would like to receive information on prefabricated buildings of all types.

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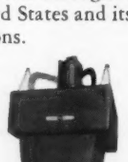

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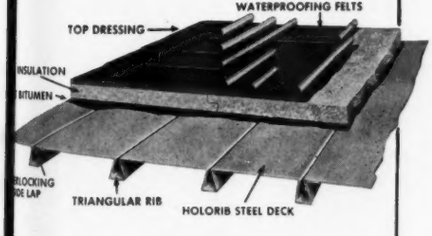

On the strong steel base is placed its middle stratum composed of pressure resisting insulating sheets which prevent heat loss. Its outer surface is long-lived waterproofing designed for permanent protection against leakage. These component parts are bonded together and waterproofed by moppings of roofing asphalt, and further secured by Holorib Expanding Nails. Thus united, they form a complete roof, and give sure and economical protection against (1) Leakage of water; (2) Leakage of heat; (3) Leakage of dollars for maintenance.

If it wasn't for Holorib, rains might delay completion of your roof for days. For Holorib sheds water—there's nothing to dry out.

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COMPETITIONS

COLUMBIA SCHOLARSHIPS

Several graduate scholarships and one university fellowship are available in the School of Architecture, Columbia University, New York, for the 1942-1943 academic year. Four first-year tuition scholarships are also available. Applications will be received until May 15.

Further information may be had from *Leopold Arnaud,* Dean of the School of Architecture.

BRUNNER AWARD

Candidates for the *Arnold W. Brunner Scholarship* for 1942, awarded by the New York Chapter of the American Institute of Architects, may secure application blanks from the secretary of the chapter, 115 E. 40th St., New York.

All applications and outlines of study must be received by the secretary on or before May 15.

The Scholarship is awarded for the pursuit of advanced study in some special field of architectural investigation selected by the candidate. The amount of the grant for the current year will be approximately $1200. Candidates are required to submit their qualifications on blanks available for the purpose, together with briefs or outlines of the investigations or studies they propose.

PRINCETON PRIZE

The School of Architecture, Princeton University, Princeton, N. J., has announced the Princeton Prize in Architecture for 1942-43, to be awarded to a student of unusual promise to advance his professional training. The winner will be exempt from tuition fees, will receive a stipend of $500, and will be entitled to all the privileges of a Fellow of the University.

The Prize will be awarded on the basis of the candidate's record and experience, particularly his achievements in architectural design. Selection will ordinarily be made from graduates of architectural schools, or from draftsmen who have been employed in architects' offices for not less than three years.

Candidates shall be unmarried male citizens, not less than twenty-one nor more than thirty years of age on September 1. Formal applications must be filed not later than May 31. Application blanks and regulations may be had from the Secretary, School of Architecture.

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OBITUARIES

HALL PENNINGTON

Hall Pleasants Pennington, formerly a member of the firm of Pennington, Lewis & Mills, New York architects, died on April 2, aged fifty-three. Mr. Pennington was graduated from Princeton University, and later studied architecture at the Beaux Arts in Paris. He specialized in the design of apartment buildings.

PERSONALS

ARCHIBALD MANNING BROWN, *Architect,* has moved his office from 140 E. 39th St., to 148 E. 55th St., New York.

CHESTER OAKLEY, *Architect,* has moved his office from 117 W. Tupper St. to 280 Summit St., Buffalo, New York.

WHAT PART HAS *Pipe* IN NATIONAL DEFENSE?

YOU'LL probably be surprised. For example: A bed for one of Uncle Sam's soldiers takes 12 feet of pipe. A water line for just one cantonment is many miles long. A single demolition bomb starts from more than a thousand pounds of steel tube. The boilers of our newest battleships contain tons and tons of the finest seamless boiler tubes. An army bomber may require a thousand pounds or more of mechanical tubing. Uncounted numbers of shells, tank parts, cannon mounts, machine gun rests, demolition bombs, all take an enormous quantity of pipe and tubes.

We wish you could see the ceaseless activity going on within NATIONAL Tube Company mills, the speeding up of production facilities, the improvements through tireless research. Then you would share our confidence that whatever the call for tubular products, whether for industry or war requirements, NATIONAL Tube will be ready to do its full part in meeting it.

We are glad that in this emergency we have been able to render our country quick, vital and quantity aid. We're all in the same boat, pulling to the same end—mill, factory, distributor, and consumer.

It's a journey none of us wanted to take, but having embarked on it, we Americans shall see it through.

NATIONAL TUBE COMPANY

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MODERN BOMBERS rely for strength on SHELBY Aircraft Tubing in many parts.

AMERICA'S STANDARD WROUGHT PIPE

AT LARGE IN THE LIBRARY

SHELTER FOR LIVING, *by Ernest Pickering. (370 pages, 7½" x 10", numerous photographs, sketches, tables, index. John Wiley & Sons, Inc., New York, $3.75)*

Mr. Pickering has compiled a wealth of information on home building for the student and the practicing architect. As a faculty member in the Architectural School at the University of Cincinnati he has had an opportunity to refine his material through many lectures. The dedication "To a Happy Family Life" tells the attitude and purpose of the book.

His solution of the shelter problem is developed from the standpoint of cultural influences. There is a thorough discussion of the means of ascertaining the requirements of a particular family, and the ways of adjusting these requirements to the budget. Low-rent, multiple housing units are presented to show the savings and advantages gained from group endeavour. Orientation, flexibility, and zoning within the house are fully canvassed. The special requirements of the rural home are also set forth.

A third of the book is devoted to an analysis of each room and the specific requirements of its equipment and furnishings, as well as its interdependence on the other units of the plan. Typical arrangements of various equipment are given in scaled and dimensioned drawings. Study of the minimum circulatory requirements is stressed. Furnishings and the decoration of the interior are studied from the æsthetic and functional points of view.

The elements of exterior design, material, texture, proportion, and the style influences of the past, are handled with certain knowledge. The principles of sound construction are illustrated and briefly discussed. There are chapters which deal with the fundamental requirements for mechanical equipment. A final chapter gives units and tables for the evaluating of the building.

Mr. Pickering has approached the problem of shelter with the point of view of providing for the needs of present-day home owners. He respects the influences of past good design and encourages the inventiveness of today to serve living in the most efficient manner.

JOHN C. SEWARD

TECHNIQUES OF SCULPTURE, A SIMPLE CREATIVE APPROACH, *by Ruth Green Harris and Girolamo Piccoli ($2.25 a copy, 85 pages, 5½" x 8½", illustrated—Harper & Brothers, New York)*

There is no doubt that Piccoli's book will be of help to the beginner in sculpture for, while admitting that there are other and possibly better ways, he doesn't confuse the uninitiated with a multitude of methods. In fact, one of his main aims is to strip the teaching of sculpture of much of its flubdub and false mystery. Remove this awe from the novice and you will soon have a well-advanced student who takes pleasure in his work. Sculpture, in fact, has been explained in even simpler terms than Piccoli's—as being merely a matter of taking off where there is too

(Continued on page 60)

HE STANDARDIZES ON ILG BLOWERS

Well known to Ohioans, after more than 25 years of service, E. F. Babbitt, Mechanical Engineer for Columbus' oldest and largest firm of architects (Richards, McCarty & Bulford) regularly specifies ILG Direct-Connected Blowers.

Designers of several Isaly Dairy Co. plants (headquarters, inset above), the architect included ILG Blowers in kitchen to remove cooking fumes, also in basement to exhaust from toilets. Installation shown has operated for over 5 years, either 18 or 24 hours a day, with "minimum of attention". For real service to clients, get ILG's complete story on propeller fans, blowers, and unit heaters, before writing your next "specs".

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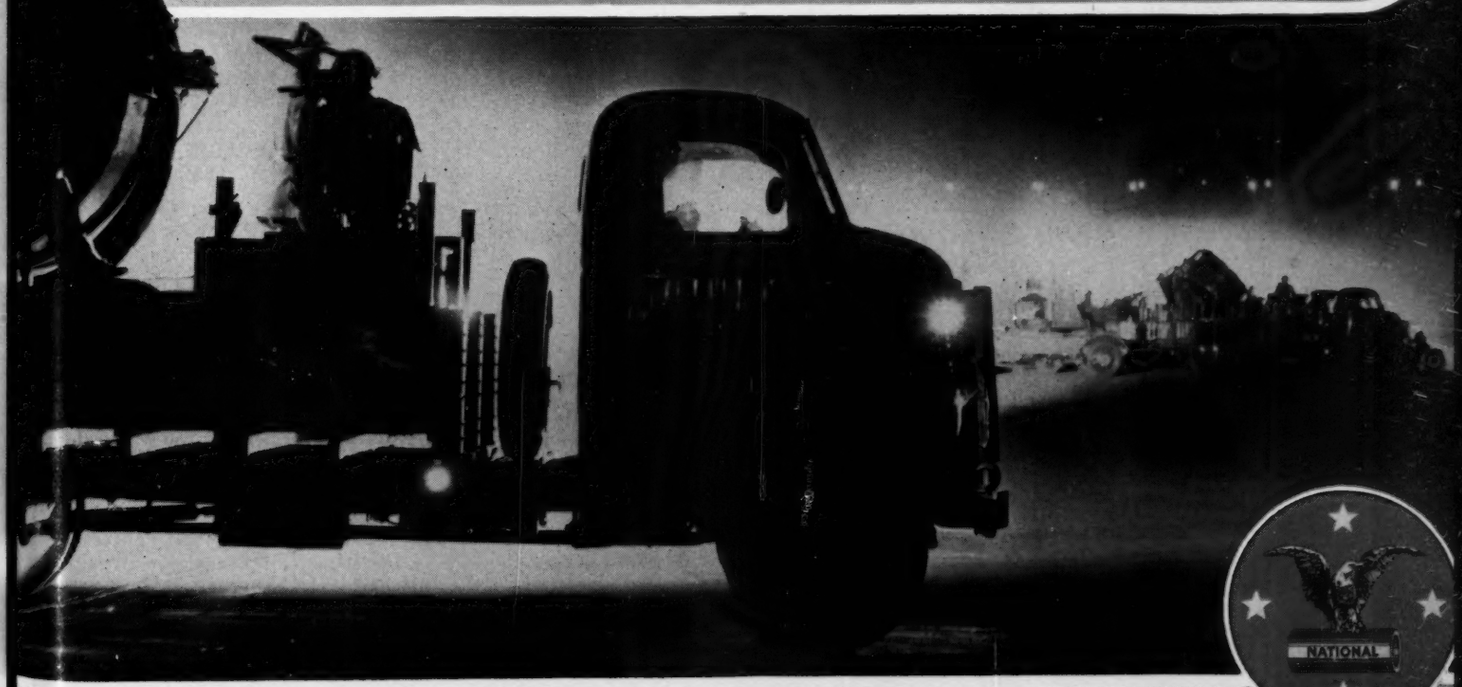

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Designers of several Isaly Dairy Co. plants (headquarters, inset above), the architect included ILG Blowers in kitchen to remove cooking fumes, also in basement to exhaust from toilets. Installation shown has operated for over 5 years, either 18 or 24 hours a day, with "minimum of attention". For real service to clients, get ILG's complete story on propeller fans, blowers, and unit heaters, before writing your next "specs".

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THE great need for huge plants to house essential machinery and equipment to carry on our war effort, and the scarcity of materials from which they can be constructed, constitute an increasingly serious problem. Architects and engineers, always conscious of available materials for a given requirement, now must function on an even higher plane of selectivity, utilizing alternates more extensively.

Almost the entire supply of some very basic materials must be melted and molded into implements of war. The extent to which less critical materials are utilized will have a definite bearing upon the time required to bring the war to a successful conclusion.

Time, the essence of vast production under any circumstance, is infinitely important to the nation today . . . for lives will be saved or lost in almost direct ratio to the time required to equip our men with ammunition, armament and planes.

In the construction emergency created by war, Owens-Illinois is happy to be in a position to serve with its Insulux Glass Block.

Insulux' uses are many and varied . . . for large areas in new buildings, which supplant substantial quantities of critical materials . . . for maintenance, so essential to continued service under severe production pressure . . . for repairs and rehabilitation within the scope of government regulations.

Glass ingredients, fortunately are native and still available. Glass in the form of Insulux blocks, minimizes the use of critical materials to a high degree—while bringing to building, possibilities for speedy erection along with insulation and light control.

Send us your inquiries. We promise the very best that's in us for the solution of construction problems which confront you under these war conditions.

INSULUX PRODUCTS DIVISION

OWENS-ILLINOIS GLASS COMPANY

TOLEDO

(Continued from page 58)
much and putting on where there is not enough.

In his paragraph on design, I felt he laid too much stress on the tri-dimensional appeal in sculpture. He does, in fact, refute his argument by the very photographs he used—the "Descent from the Cross," by Michelangelo, and a little Tanagrafigurine—both of which seem quite complete and satisfactory from one view. To prove his point he would have done better to have used almost anything else Michelangelo did, for it was he who brought that phase of sculpture to its highest point. Having, however, used the "Descent from the Cross," which is probably one of the most sophisticated designs we have in sculpture, I felt he could well have devoted more space to an analysis of its many merits as a work of art. The entire chapter on design, in fact, could have been larger and more comprehensive in scope.

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★ **CANNOT SHORT-CIRCUIT**
The incoming and outgoing air streams are so nearly at right angles that supply air cannot be sucked into the exhaust.

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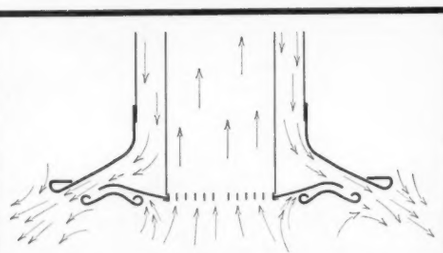

CROSS-SECTION OF THE UNIT
This drawing shows the construction of the VENTURI-FLO Combination Supply and Exhaust Air Diffuser, and the arrows indicate the paths of air travel. Note particularly how the fresh air is delivered nearly at right angles to the exhaust flow, thus assuring that there will be no "short-circuiting." Uniform, thoroughly-diffused air flow in all directions, together with efficient exhaust pick-up, is provided by this Combination Diffuser.

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ARCHITECTURAL HERITAGE OF THE MERRIMACK, *by John Mead Howells, with an introduction by William G. Perry (248 pages, 9¼" x 12¼", 302 plates. Architectural Book Publishing Co., Inc., New York.)*

The great architecture of any period has been the result of a straightforward expression of the life, loves, and aspirations of its peoples as executed by a group of skilled artisans under inspired leadership. It is only natural that the Merrimack Valley, which was so much a part of the growth and expansion that pulsed through New England from the Colonial times into the dazzling whaling era, should have an important story to tell.

Architect Howells has presented his material in a manner to recapture every vestige of the charm of the period. Beginning with the Colonial-Federal houses of Newburyport, he takes the reader on a picture trip through West Newburyport and up into the foothills of the White Mountains. From the finest mansion to the humblest cottage one renews again an acquaintance with the fine craftsmanship and naturalness in handling native materials which makes for great architecture.

May I also commend the fine quality of the photographic illustrations. J. R.

THE EARLY IRONWORK OF CHARLESTON, *by Alston Deas ($6.00, Bostick & Thornley, Inc., Columbia, S. C. 105 pages, 8¾" x 12". Illustrated by Richard J. Bryan.)*

Presented here in three parts, namely: historical background, an insight into the men who fashioned the ironwork, and a series of scale drawings, is the essential history of the early ironwork in Charleston. This book picks up many of the loose ends that have existed in the story of ironwork which made such an important contribution to the life and culture of such an important southern city. The style of presentation is readable.

It will find an appreciative audience among historians for the avenues of information it opens up. It will be of interest to collectors of Americana and those interested in that phase of our American heritage which had its origin in the ironworker's shop. By reason of the short historical period covered, the book would have a limited use as a reference volume for the architect in spite of its careful scale drawings and marginal sketches. J. R.

(Continued on page 62)

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(Continued from page 60)

ART TODAY, *by Faulkner, Zeigfeld & Hill ($3.50, Henry Holt & Co., New York. 350 pages including 214 photographs, 6" x 9".)*

According to the authors, their book is a "direct outgrowth of the experiments in general education undertaken at the General College of the University of Minnesota to make various fields of human endeavor meaningful and vital in contemporary society." This is, indeed, an ambitious task and one which this reviewer thinks has been admirably performed.

ART TODAY introduces us to the art of form and color as we come into contact with it in everyday life. The book is profusely illustrated with photographs appropriate to the text. The problems in each living area are discussed specifically, whether they be the furnishing of a one room apartment on a budget, the small park in the center of a large city, or a rural chapel in the country section of a European nation. In discussing organization as it is applied to design, the reader is shown how this principle is applied to the painting of Goya, a building by Frank Lloyd Wright, or to the design of the lowly salt-shaker. In chapters on photography, architecture, silver working, typography, and numerous other arts and crafts, the reader is shown how the fundamental principles apply in all cases, and what specific limitations each has. This volume should have an important place on every modern-thinking architect's bookshelf. J. R.

THE COMMONS ROOM AT THE UNIVERSITY OF PITTSBURGH. *(Portfolio of ten signed prints by Andrey Avinoff. Each print is approximately 15" x 19", $15. University of Pittsburgh Press, Pittsburgh, Pa. Five hundred sets printed.)*

The Commons Room in the Cathedral of Learning at the University of Pittsburgh is the center of life at the university. Here under its vaulted stone ceiling thousands of students meet daily to talk, to drink tea, and to listen to the organ music. The Room suggests that harmony that exists between education and living.

Andrey Avinoff, Director of the Carnegie Museum, has caught, in these pencil drawings, the mood and purpose of the room. A.E.G.

YOUR OWN HOUSE, *by Ethel Fay Robinson and Thomas P. Robinson. (179 pages, 6¼" x 9¼", 200 pencil illustrations. The Viking Press, New York)*

This book was written for anyone who, according to the publishers, "wants to spend time thinking about a home of his own before he builds." To guide our prospective home owner to ultimate success in properly choosing the kind of home with which he will be most satisfied, the authors discuss site, plan, roofs, materials, and many other aspects of the house, chapter by chapter. There are excellent illustrations by Mr. Robinson. For the layman who likes Colonial architecture and antique shops, this book will serve as a good guide. To the architect it will be a rehash of principles known to him, but it will serve as a good browser book for the lay client mentioned above. Both text and illustrations are so presented that the philosophy of the reader is molded into lines more consistent with that of the architect in his attack on problems of house design. J. R.

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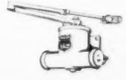

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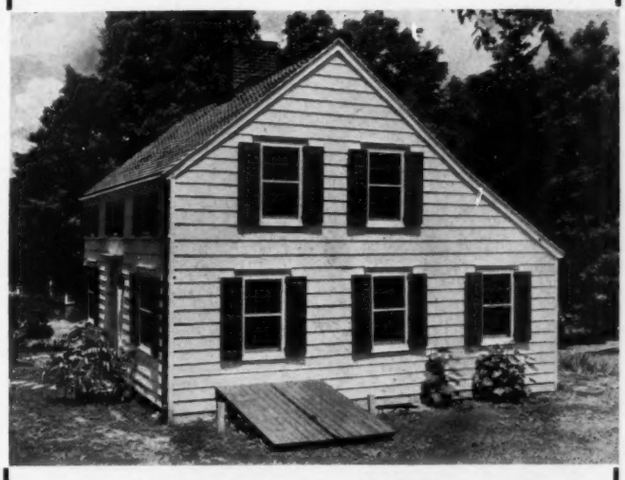

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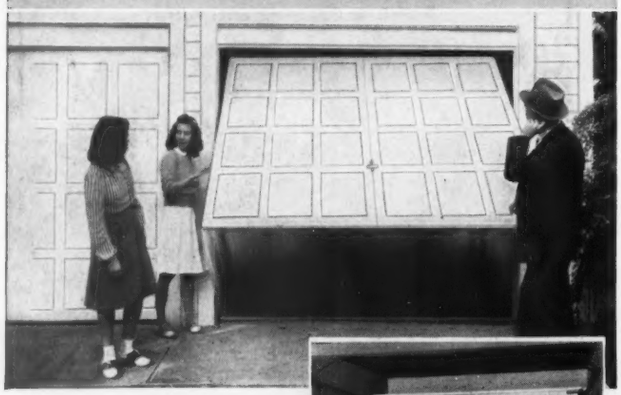

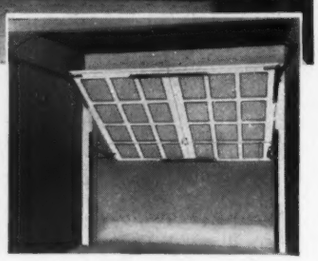

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NEW PRODUCTS

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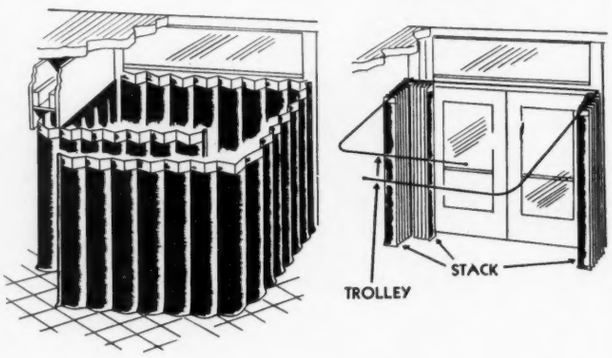
A practical solution to the blackout entrance problem has been developed by New Castle Products, New Castle, Indiana. Its new Folding Fabric Blackout



Partition works on an accordion-like principle, deriving its operation from a specially-designed, hinge lock, self-spacing hinge plate at the top. It folds on itself and has a roller assembly traveling easily on an overhead track. A vertical pipe connected to the lead trolley and extending to approximately six inches from the floor, concealed in a loosely-fitted front hem, gives rigidity to the front of the partition and serves as a standard. The flameproof fabric is attached with grommets at the top and to one side of the hinged plates. The height of the fabric is two inches greater than the room height and drags the floor to assure adequate coverage.

Valances are provided to insure a perfect light lock. When not in use, the partition can be folded to the wall. Units are furnished for entrances in factories, warehouses, stores, hotels, office buildings, restaurants, etc.

BLANKET INSULATION

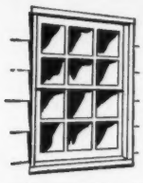
A new insulating blanket, especially developed for war time construction, has been announced by Wood Conversion Co., St. Paul, Minn., makers of Balsam-Wool insulation. Called Defense Blanket, the new product is a completely sealed insulation covered by a waterproof paper on both sides. It is flanged on the edges for quick, permanent application. Defense Blanket is available in rolls, or may be cut in varying lengths to fit job requirements. It is light in weight, low in cost, and can be easily handled.

FOUNDATION GRATE

As its contribution to war time housing requirements, The Majestic Co., Huntington, Ind., has announced a new, screened, bar-type foundation grate designed to meet both the cost and dimensional needs of war time house construction. The new unit consists of two adjacent rows of alternately-spaced vertical bars. The two rows overlap each other slightly, providing what is substantially a single, closely-spaced staggered row. A heavy galvanized screen is threaded between these two rows of bars to prevent the admission of insects, dirt, and other foreign objects. The grate is formed of cast semi-steel and is made in three sizes: 8 x 8, 8 x 12, and 8 x 16 inches.

(Continued on page 66)

-protection in the public interest



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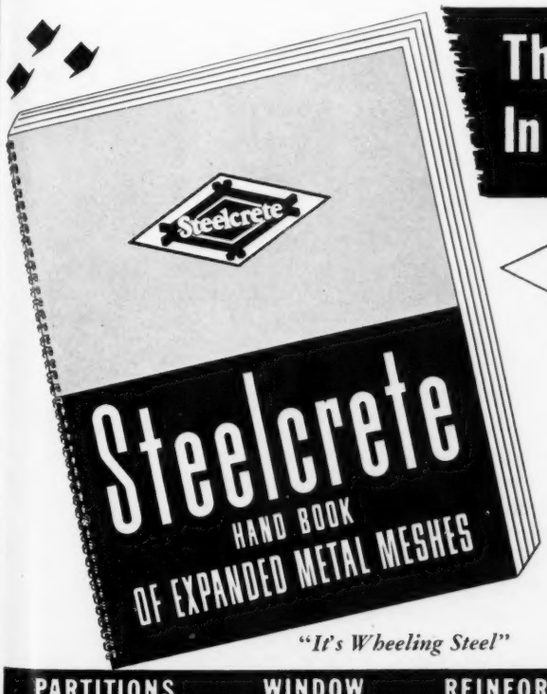

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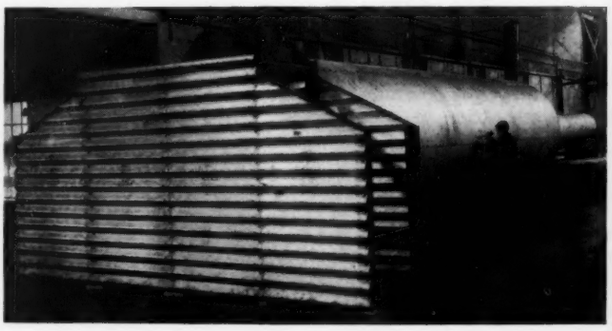
BLACKOUT SHADE

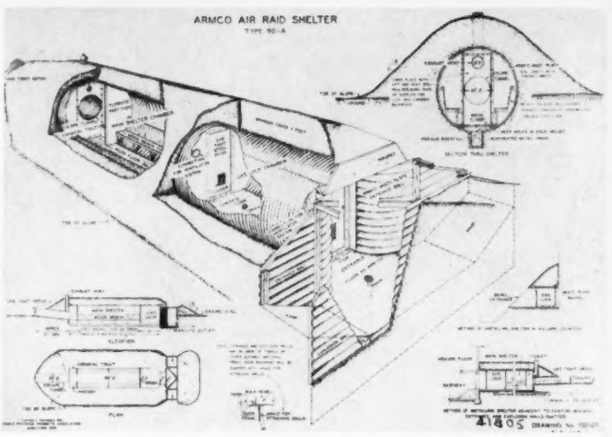
A product which was orginally developed as a photographic darkroom accessory now finds itself in wartime demand as a blackout shade. The Light Tight Shade, made by Higgin Products, Inc., Newport, Kentucky, is now being manufactured for use wherever blackout protection is needed.

Each shade is custom built for a specified opening. The shade is made of a special pebble-grain cloth built up to two layers of fabric, thoroughly united, and coated on both sides. The cloth is said to be crackproof and pliable under all climatic conditions. Light, strong metal braces, spaced at proper intervals, prevent wind pressure from forcing the cloth out of the metal side guides. The bottom bar of the shade has a metal tongue which slips into and interlocks with the sill member. A bronze spring catch holds the shade securely when it is in the down position.

AIR RAID SHELTER

Engineers of the Armco Drainage Products Association, Middletown, Ohio, have designed this air raid





shelter that offers protection from the effects of gas and demolition bombs. This type of structure, as revealed by War Department tests, is highly resistant to splinters, blasts, shrapnel, debris from falling buildings, and earth shock.

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A gas lock may be made an integral part of the shelter. The main section is made gas- and water-tight

(Continued on page 68)

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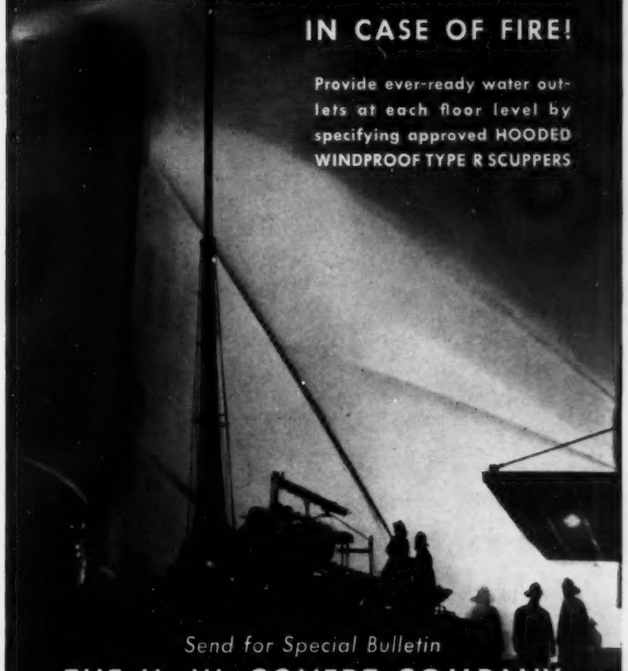

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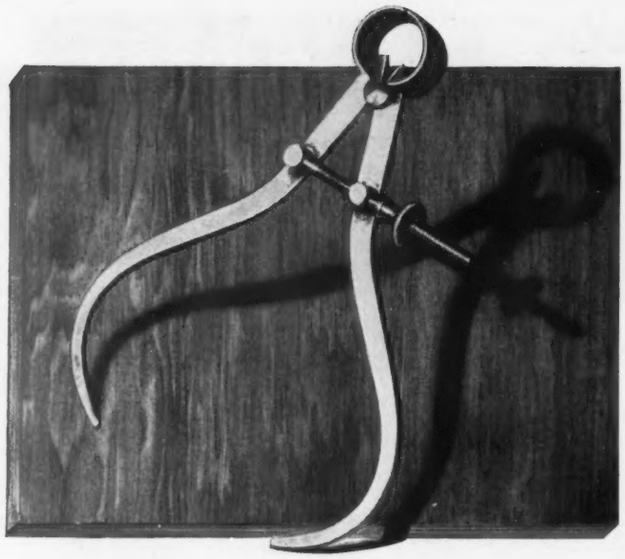

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(Continued from page 66)

by sealing the joints with a special mastic. An escape tunnel is protected by a gas-tight hatch, while a gas-tight steel door guards the entrance.

The engineers suggest that at least three feet of earth be used to cover the shelter since earth shock tends to lift the shelter rather than crush it when it is installed with its mid-diameter slightly above the ground level. Four unskilled workmen can erect the shelter with simple tools, without any special equipment.

CERAMIC TILE BATHTUB

The Tile Manufacturers' Association, Inc., 50 E. 42nd St., New York, has developed this all-ceramic

tile bathtub to save metal needed for the war program. The all-tile tub is built at the job by a tile contractor. The interior of the tub is composed of small pieces of unglazed ceramic mosaic tile which is available in large quantities. A tub so built is said to be slip-proof. Many color combinations are possible with the tile, points out the Institute.

AWNING PAINT

A new kind of paint, made especially for canvas awnings, has been developed by the Aridye Corp., Fair Lawn, N. J. The paint is said not to stiffen the fabric, or crack, and is sun-resistant, water-repellent. Practical feature, points out the manufacturer, is that this new product, named Setfast Awning Paint, preserves the awnings from rot and mildew.

The paint can be either brushed or sprayed on, and dries quickly. With Setfast, the awnings need not be taken down to be painted. Seven colors are offered, plus black and white—green, blue, red, burgundy, yellow, tan, brown. Available in quart and gallon sizes. (One quart will cover an area of 60 square feet.)

SURFACING MATERIAL

A product which combines the functions of insulation, sheathing, and siding, has been introduced by The Celotex Corp., 919 N. Michigan Ave., Chicago, Ill. Named Granule Surfaced Siding, the product has a rigid cane fibre insulating board core which provides bracing strength exceeding the horizontal wood sheathing, points out the firm, while the weather-sealed mineral granule surface provides an attractive exterior facing.

The new siding is $\frac{7}{8}$-inch thick, two feet wide, and eight feet long. Its cane fibre core is protected against

termites and dry rot by the Ferox process. The core is coated on all sides and edges with an asphalt compound. On the outside surface is an additional coating of high-grade asphalt into which mineral granules have been firmly imbedded. The long edges of the boards have tongue and groove joints. Granule Surfaced siding requires no painting, and is applied directly over wood studs spaced 16 or 24 inches on centers.

Four surface colors are available: brown, buff, red green. The manufacturer points out that the new product is an effective substitute for some types of materials now on the critical list or not readily available. In addition to its use on wartime construction, the siding may be used for prefabricated buildings, tourist cottages, summer homes, garages, roadside buildings, etc.

SHATTER-RESISTANT COATING FOR GLASS

A transparent material for application on glass to prevent its shattering is being manufactured by Wilber & Williams Co., Park Square Building, Boston, Mass. The material comes in liquid form and can be applied by spraying or brushing. The coating passes sunlight with little absorption. It dries quickly, and forms a strong film which has a tensile strength of 3,000-5,000 pounds per square inch. Elongation is over 50%, permitting considerable movement of the glass without rupture of the film.

Actual melting point is over 200°C. While not intended for long service on the exterior, where exposed to weather, this shatter-resistant coating should be useful in any period of active bombing; and, on the interior, should give protection for an indefinite period. It can be washed whenever necessary.

BATHROOM CABINETS

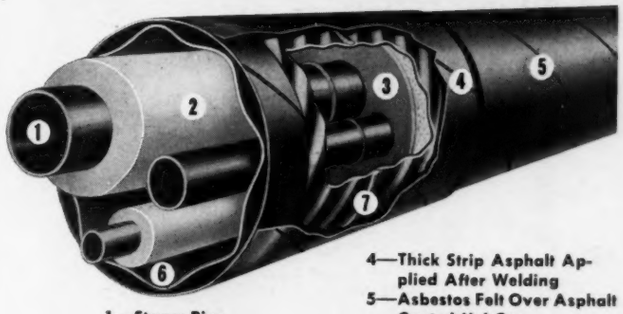
The F. H. Lawson Co., Cincinnati, Ohio, has introduced a line of "Quiet" fluorescent-lighted bathroom cabinets. The lighting fixtures are an integral part of the cabinet. Due to a self-starting switch and an improved resister, all hum and flicker have been eliminated. The switch controlling both lights is located in the base of the left bracket, and a convenience outlet is located in the base of the right bracket. Further details may be had from the firm which will continue to make these units as long as materials are available.

PROTECTIVE COATING FOR WINDOWS

To prevent injury caused by flying pieces of glass broken by vibration, a transparent protective coating for windows has been developed by Maas & Waldstein, 438 Riverside Ave., Newark, N. J. Window glass or plate glass treated with this new coating, called Glasshield, is, in effect, turned into safety glass. A coated pane may break as a result of vibration but it does not shatter, according to the manufacturer. It is also claimed that the coating does not interfere with vision or light transmission through the glass.

Two coats of Glasshield on the inside surface of a window pane are effective, the manufacturer states, but for maximum protection the outside surface should be similarly treated. The coating is applied with a brush. It can be removed with a razor blade when no longer needed.

PRE-FABRICATED



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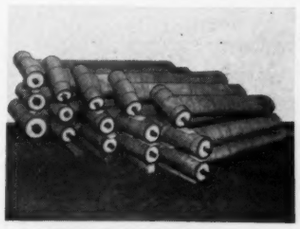
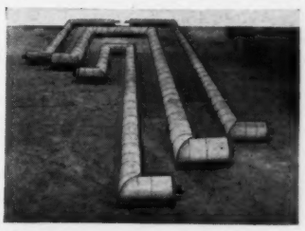


Hairpin expansion loops for flanged units



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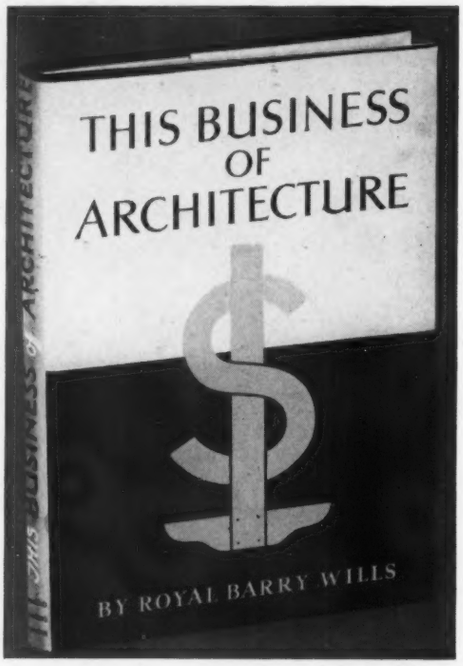

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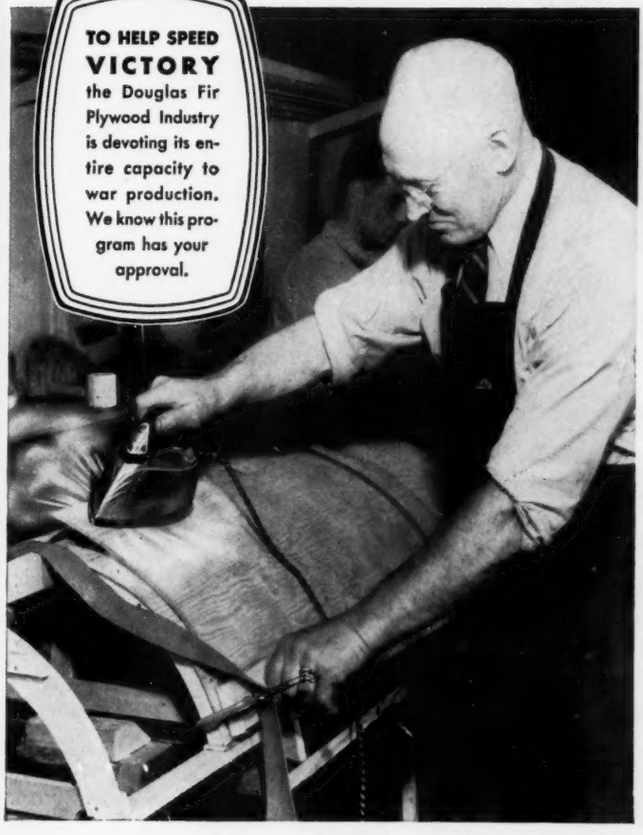
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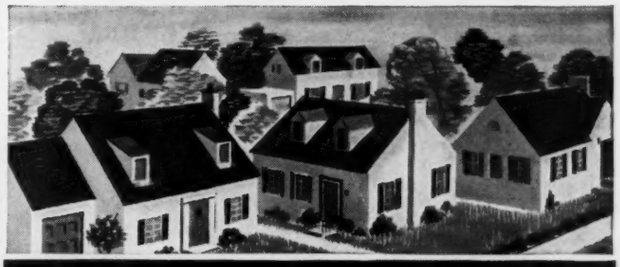

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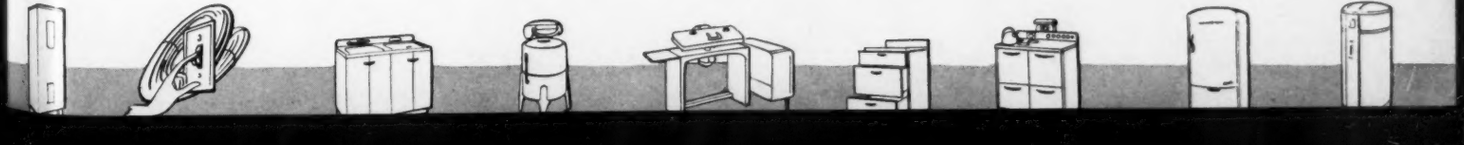

LETTERS • FROM READERS

A number of leading members of the architectural profession were invited last month to comment upon the Editorial Statement and Creed which appeared in the May issue of PENCIL POINTS. *The Statement and Creed represented an important declaration of future policy of the part of the editors in their determination to revitalize* PENCIL POINTS *and make it an effective instrument with which the battles of the profession may be fought. The response from readers is indicated by the selection of excerpts of letters printed here.*

Architect Man

"I have read the editorial statement with interest and I like its verity, courage, and timeliness.

"I feel a little of the Nazi doctrine in your architect man. How about the women? Our point of view of the practice is that pretty shortly all able-bodied men will be in service and that women will have to do the job. It is shortsighted vision, I believe, to exclude what must be an important part of our profession if this war continues for several years."

WALTER T. ROLFE
President
Central Texas Chapter, A. I. A.

*

"I am in full sympathy with your determination to revitalize PENCIL POINTS, and am in full accord with the material contained in your editorial statement.

"I think you are on the right track, and, if you keep at it, the architectural profession should make forward progress not only for itself, but for the community."

M. W. DEL GAUDIO
State Association Director, A. I. A.

*

"I have just returned from San Francisco where I met the type of architect who, I believe, will have the confidence of his clients in the next decade, as he seems to have even now. His viewpoint is direct; his construction and mechanical elements are practical without display; he is a thoroughly competent businessman, interested in his own welfare as well as his clients' (which is understandable), and, to cap off this amazing personality, he has a thorough appreciation of design without that overemphasis of artistic character which has been mistrusted in the past.

"I gather from your editorial that you would like to have the architects have the qualities which are incorporated in this San Francisco man. I cannot help but feel that the architect gets his just deserts; others often do a better job than we do and hence, not through ignorance by the public, as is the typical architectural excuse, important work goes where it will be the best done.

"Many of the architects have clamoured for more publicity for the profession; my contention is that nothing will do us more good or give us better understanding with the public than doing a bang-up job of architecture."

J. LISTER HOLMES
Seattle, Wash.

Gilded Age

"You are very much on the right track. The future hope for the profession lies in the architect's ability to adapt himself to the new world.

"You should underline especially the fourth paragraph of your 'Creed'. The profession is still suffering from the habits it acquired in a more gilded age. Its problem now is to raise its standard of knowledge and competence to cope with its future. It must realize that sociology and economics, together with sound techniques in planning and construction, must form the background from which beauty will arise in the future world. Your help along these lines should be most effective. It is the duty of the profession to see that every architect is capable of 'good architecture'." LAWRENCE MOORE
President
Connecticut Chapter, A. I. A.

*

Attack Aggressively

"The fifth paragraph of 'We Believe' stands out pre-eminently as one of the desirable, most necessary achievements the profession as a whole must attain. I am sorry to say that there has been less cooperation, and less interest among the members of our profession than any other group of professional men.

"If our profession is ever going to achieve success we must aggressively attack the problems at hand and work them out for the benefit of all. Lay aside jealousies; realize that only by force of numbers and unity of thought can we gain our end." LEO H. PLEINS
Central Illinois Chapter, A. I. A.

(Continued on page 10)

"My feelings are explained by this cartoon. I believe if you can take and hold the leadership of the profession through PENCIL POINTS that it will be the only *way the architects can retain their position through this emergency, and afterwards. It is quite evident that many of our old ideas, and certainly most of the ideas of the hide-bound members of the profession, will have to be thrown into the waste basket in order to survive."*

ROYAL BARRY WILLS
Boston

Here's a pile driver hammering away at the closely fitting removable inner core which carries the spirally corrugated steel shell of a Raymond Concrete Pile down to the desired resistance. But costs are being driven down, too, as thousands of owners, architects, engineers and contractors can tell you . . . because Raymond Concrete Piles have the reputation of producing greater permanent safe load-carrying capacity at lower net cost. In these days of rising costs and priority delays, you should consider the most economical and practical methods . . . using a minimum of priority materials including war essential steel.

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Plan Now!

"I have read with a great deal of interest the announcement of THE NEW PENCIL POINTS. It sounds almost too good to be true. It should have been done long ago. But this is not in the way of a recrimination. Architectural magazines necessarily reflect the world in which architects live, and much of the chaos of their world is due to their refusing to make decisions and to take stands.

"I am deeply convinced of the two following things: (1) It is not merely for the good and selfish interests of the architects that architects should have a leading part in the creation of a better world, but it is rather for the good of all our fellow men. (2) Planning for a better world cannot be postponed until tomorrow. Regardless of the urgency of the immediate task—to obtain Victory—if it is a better world we desire we have to begin to plan it *now*."

WILLIAM LESCAZE
New York, N. Y.

*

"Your editorial, 'New Beginning,' and the accompanying statement of belief impresses me favorably both for their all-out frankness and factual statements. The profession of architecture is going through a trial period, and if it cannot stop waiting for a solution of their difficulties and furnish a far-sighted leadership, to make and sell to our country the many services that a capable architect has to offer, we will be forced to wage a longer fight for recognition than is necessary or fair to the country."

LEIGH HUNT
Milwaukee, Wisc.

*

"Of course I'm in sympathy with your Credo. Them's noble words which none may gainsay. Now let's see the performance.

"Don't be afraid to look backward as well as forward. We can learn from the past. In fact, that's the only way we *can* learn how to plan for the future.

"Leadership may not be had by clamoring for it. The only leadership worth having comes to those who, by their performance, have proved their fitness for it.

"Let's not lose sight of the chief function of an architectural magazine. It is not to exploit the architect or to find jobs for him. It is primarily to exploit the advancement of architecture."

HUBERT G. RIPLEY
Boston, Mass.

*

Revitalization

"The apparent lack of acknowledgement of the profession in the current emergency proves beyond a doubt that colossal weakness is evident. Lack of competency is so profuse that pages might be written in defining responsible items.

"In my opinion the profession and the schools must immediately prepare for revitalization toward social and economic considerations, to an extent of which neither are as yet aware.

"It is an accepted fact that the engineer now has public confidence to a degree which is definitely pushing past prestige of the architect into oblivion. Why? You know the answer; so, let's do something about it. More power to you in your effort."

L. C. DILLENBACK
Syracuse University

*

"The folder outlining the principles which will guide THE NEW PENCIL POINTS, is an inspiring document. If the profession of architecture is to survive, it must have the quality of leadership which you describe. I wish that you would let me help you."

JOSEPH HUDNUT
Dean, Harvard University

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for food service, supplies, garbage disposal in canteens, mess halls, hospitals and other institutions, and for any special needs where loads do not exceed 500 lbs.

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SEDGWICK ELEVATORS
for handling freight and other heavy or bulky loads, for movement of patients and staff in hospitals, for mortuaries, and for any special needs where loads range up to 2,000 lbs.

★ We invite consultation and offer fullest cooperation in connection with any problem related to vertical lifts. ★

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Our Job for 1942

"Our" means Youngstown and all its customers

Work will win this war. Every possible pound of ore must be mined and transported to the furnaces, every possible pound of steel poured from open hearths and Bessemers. Equipment and men will continue to work night and day for Victory.

Where does this steel go? To fabricators who will convert it into material which will be used to win this war. Their equipment and men will work night and day, for Victory.

When we free Americans are willing to work to the limit of our capacity, our triumph over the dictator-driven workers of our enemies will be sure.

THE YOUNGSTOWN SHEET AND TUBE COMPANY
YOUNGSTOWN, OHIO

25-35E

COMPETITION ·

ANNOUNCEMENTS

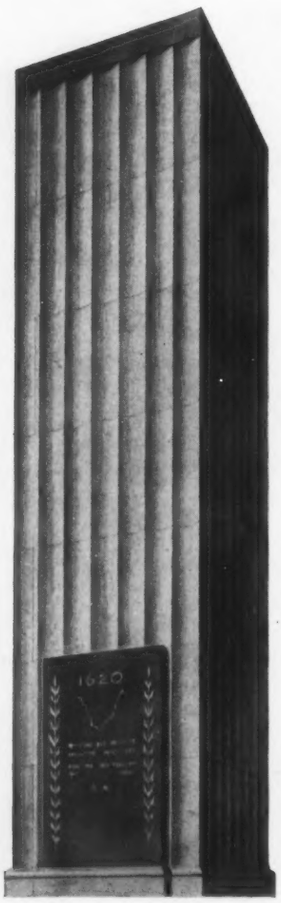
$500 FOR A NAME! — THE NEW PENCIL POINTS hereby offers a $500 U.S. War Bond as the prize for the best name suggested for this magazine as it is now being published. The award will be based on (1) the appropriateness of the name itself and (2) the soundness of the reason advanced for its selection by the contestant. In addition to being descriptive or suggestive of the type of magazine, it is desirable that the name shall be brief. It also should be imaginative, rather than dull and literal. Above all, it should be clearly associated with the field we serve—Architecture.

The familiar name, PENCIL POINTS, has acquired, during the past 22 years, the friendly regard of architectural men throughout this country and in many other parts of the world. Its watchword has always been service to the *whole architectural profession.* In rendering its service it has been recognized by tens of thousands of readers as a helpful and stimulating publication. But in spite of the tremendous amount of "good-will" built up within the profession around the name PENCIL POINTS, it has been felt for some time that the name has ceased to be truly descriptive of the type of publication that has evolved through the years. What was originally conceived as *"A Journal for the Drafting Room"* has, under the pressure of changing times and needs, become a forward-looking technical magazine *"Published for the Profession of Architecture."* Its publishers now desire to determine the most appropriate name that can be found to accord with the new spirit of this publication as outlined in the Creed stated by the Editors in our May issue and repeated on page 36.

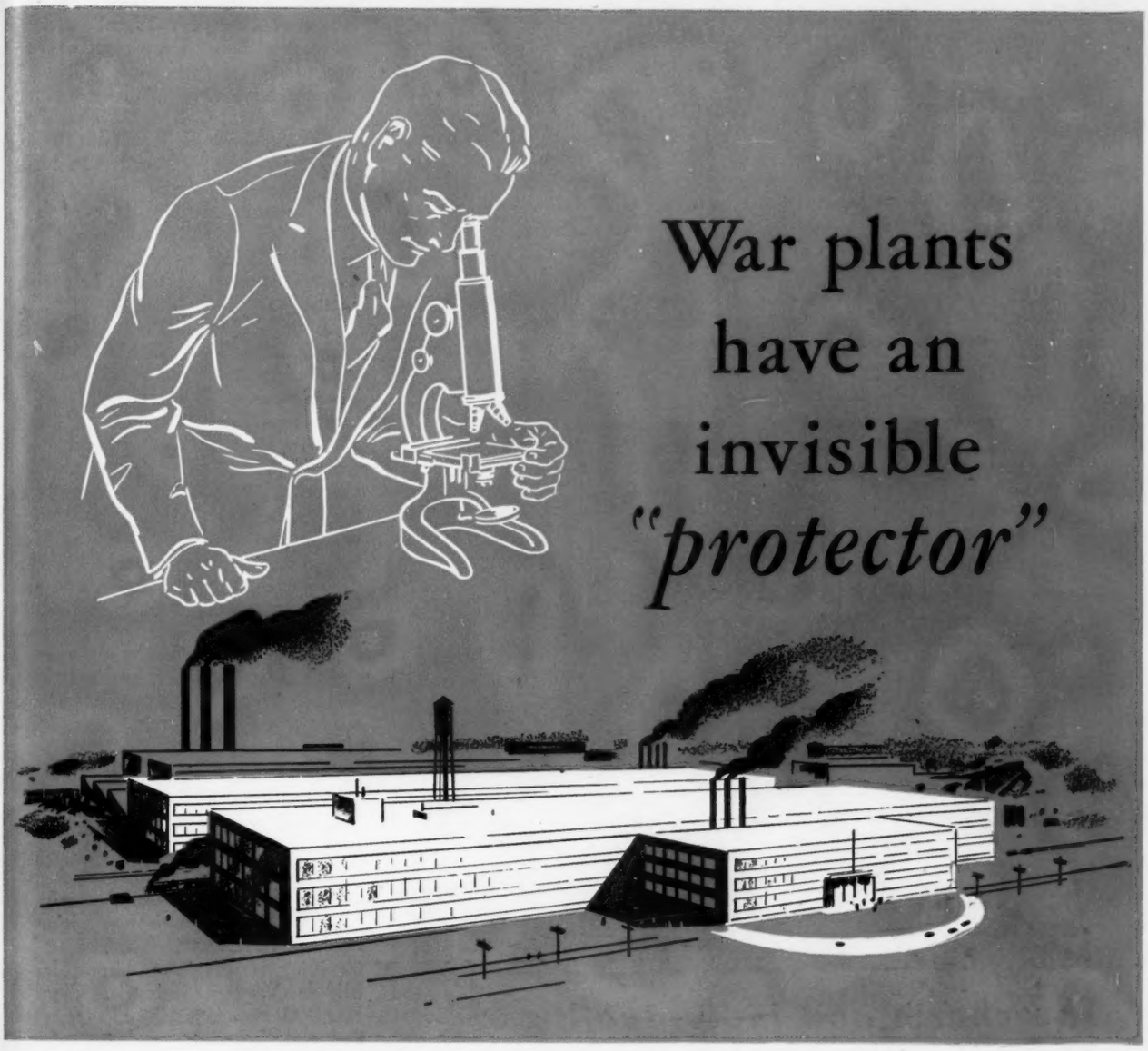
Naturally, a fully appropriate name cannot be suggested without opportunity to see a fair sample of what the new magazine is to be. The closing date of the competition is therefore set as August 20, 1942, when three issues will have appeared.

(Continued on page 14)

Add to the list of those who dissent from recommendations of New York's Park Commissioner Moses, the name of the Fine Arts Federation of New York. For instance, the Moses project for the "new" Battery Park, including ventilating units of the Brooklyn-Battery Tunnel (shown here), has drawn fire from F.A.F.—which will soon conduct a competition on this subject



DEPARTMENT OF PARKS



It's the refinements... the benefits of patient research... *the quality*... of the electrical wires and cables upon which uninterrupted operation depends.

In electrical wires and cables, the "tremendous trifles", the never-heard-of-improvements, small as many of them are, are lengthening the period between "begin operation" and "breakdown". They are safeguarding *steady* production . . . they have been built to keep pace with 3-shift operation.

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical demands. Their improved constructions deliver greater capacities with less power loss, their insulations can withstand high heat, corrosion, abrasion. The research that built these wires and cables continues at a fast pace. Now in addition to delving into experiments for improvements in industrial products, Anaconda is devoting much of its research to wiring for residential and commercial building.

When peace returns, adequate commercial and residential wiring will need your attention.

The electrical future will place greater demands than ever before on those in a position to make wiring selections. Anaconda will cooperate with architects with information and with products measuring up to their specifications. 42223

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In the event that any contestant feels that the name PENCIL POINTS is the best possible name for the publication, he may so state, giving his supporting reasons, and his entry will be duly considered along with the others.

For consideration by the Jury, names shall be written, lettered, or typed at the top of a sheet of white paper, 8½" x 11". Below the name shall be written, lettered, or typed a statement of 200 to 300 words setting forth the reasons why the name suggested is considered appropriate. The sheet shall be identified only by a *nom de guerre* or device, but with each submission there must be a plain, opaque, sealed envelope within which is contained the true name and address of the contestant. The *nom de guerre* or device of the contestant shall be on the outside of this envelope, which will be opened only after the award has been made. The whole shall be enclosed in another envelope addressed to NAME CONTEST, Room 1205, 330 West 42nd Street, New York. This outer envelope may contain a return street or post office address, but no name. It must bear a post office cancellation stamp of Thursday, August 20, 1942, or earlier date. Entries not conforming to the foregoing rules will not be eligible for consideration by the jury.

The judges will be: Ralph Reinhold, President of Reinhold Publishing Corporation; Philip H. Hubbard, Vice President and Publishing Director; Kenneth Reid, Editor of THE NEW PENCIL POINTS; Charles Magruder, Managing Editor; and Don Graf, Technical Editor. The decision of the jury will be final.

A $500 bond will be mailed to the winner immediately on conclusion of the judgment. Public announcement of the winner will be made in the October issue of THE NEW PENCIL POINTS, together with a Report of the Jury of Award. The name chosen for the prize is to become the property of the Reinhold Publishing Corporation, which reserves the right to use it or not. The non-premiated entries will be destroyed. No entries will be returned.

The contest is open to all except employees or officers of the Reinhold Publishing Corporation or members of their families. There is no limit to the number of entries that may be submitted by any contestant.

The charm and individuality of MEDUSA WHITE STUCCO

Most American people dislike design regimentation in homes. They prefer homes with individuality. This applies even to smaller cottages. Medusa White Stucco, made with Medusa White Portland Cement (the original white cement), gives the architect and builder an opportunity to express individuality in design and color. That's why we find many of our most beautiful homes have exterior stucco finishes. For more than 32 years, architects have depended upon beautiful Medusa White Portland Cement for creating their stucco homes. And for the same number of years, Medusa White has faithfully served the makers of cast stone trim, terrazzo, white concrete floors, white concrete slab construction. Send the coupon below for your copy of the Medusa White Stucco book.

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PLYM AWARD

Ralph E. Myers has been awarded the Francis J. Plym Fellowship in Architecture for 1941-42 by the Plym Fellowship Committee of the University of Illinois. Second place was given to *Richard E. Drover*. The subject of the program was "An Airport for a Middle Western Industrial City of 100,000 Population." The competition was limited to graduates of the Department of Architecture at the University of Illinois.

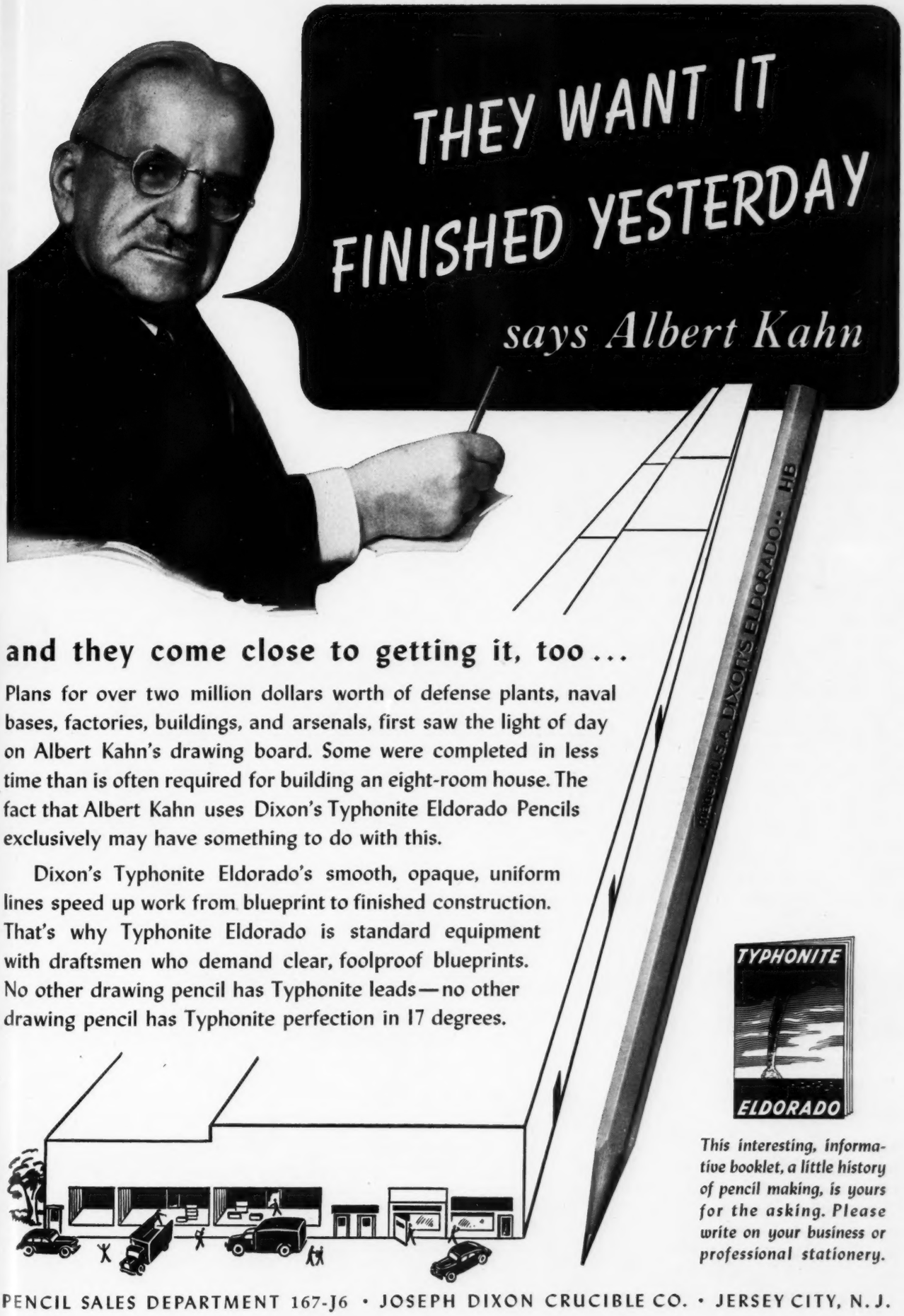
The Jury felt that Mr. Myers had realized that the development of the airplane for commercial use was in its infancy and, by *grouping his buildings around two sides of the field, had provided the opportunity for any future building requirements.* Incorporated in the winner's scheme was the design of an airport building with dining, club, and terrace facilities.

BRIDGE AWARDS

The fourteenth annual awards for the most beautiful bridges built during 1941 were announced recently by the American Institute of Steel Construction as follows:

Most beautiful monumental bridge: Rainbow Bridge over Niagara River at Niagara Falls.

Most beautiful small bridge: Fairmount Boulevard Bridge, Hunting Valley Village, Cuyahoga County, Ohio.



and they come close to getting it, too . . .

Plans for over two million dollars worth of defense plants, naval bases, factories, buildings, and arsenals, first saw the light of day on Albert Kahn's drawing board. Some were completed in less time than is often required for building an eight-room house. The fact that Albert Kahn uses Dixon's Typhonite Eldorado Pencils exclusively may have something to do with this.

Dixon's Typhonite Eldorado's smooth, opaque, uniform lines speed up work from blueprint to finished construction. That's why Typhonite Eldorado is standard equipment with draftsmen who demand clear, foolproof blueprints. No other drawing pencil has Typhonite leads—no other drawing pencil has Typhonite perfection in 17 degrees.

This interesting, informative booklet, a little history of pencil making, is yours for the asking. Please write on your business or professional stationery.

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WASHINGTON · REPORT

COMPILED BY A. D. TAYLOR OF CLEVELAND

War Workers' Housing

The greater part of war workers' housing from now on will proceed on the understanding that this type of housing will be dismantled when the emergency is over.

A considerable program of dormitory housing, which may expand to 7000 units, is being administered through the PBA, which will be responsible for design, supervision, construction, and eventual management.

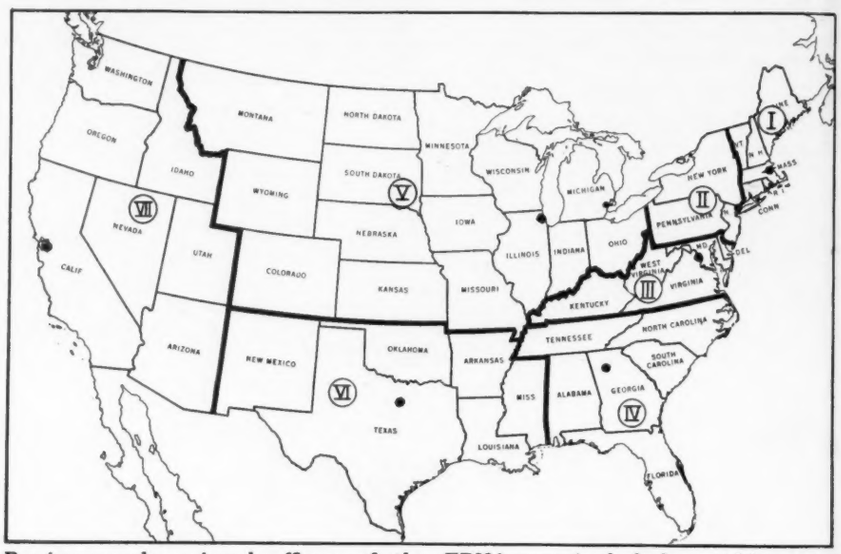
The President has asked Congress for $600,000,000 more housing appropriation for the ever-expanding housing needs in industrial communities.

Community Facilities on Major Housing Projects

The sources of funds for the community facilities required on the larger War Workers' Housing Projects are (a) Public Act No. 9 funds; (b) Defense Public Works funds (FWA); (c) Lanham Act funds. On the prefabricated housing projects, initiated through the Construction Division of the Federal Works Agency, the major part of the funds for constructing necessary Non-Dwelling Community Facilities are from Public Act No. 9 appropriation. In these instances the Regional Offices of the Federal Public Housing Authority determine the extent of Non-Dwelling Facilities required on any project, and the approximate expense which seems justified for such facilities. Under the Lanham Act, three per cent of the total cost of the project is a limitation of the monies available for Non-Dwelling Community Facilities — Administration, Fire Station, Schools, Commercial Facilities (to the extent approved), Recreation Building, etc. Under Public Act No. 9, this limitation is established not by congressional act, but by determination of the Government Agency analyzing these requirements.

FPHA Regional Offices

The expansion of the War Workers' Housing Program makes it necessary for the Federal Public Housing Authority to increase the number of its Regional Offices from seven to ten. The three new Regional offices will be located, in all probability, in Kansas City, Missouri; Seattle, Washington; and Cleveland, Ohio. Information concerning the extent of the area to be placed within these new regions is not available at the time of preparing this report. In all probability, Region Five and Region Seven, as set forth in the accompanying map, will be divided to create the areas to be included under the new Regional Offices. (For names and addresses of Regional Directors see page 203, April PENCIL POINTS.)



Regions and regional offices of the FPHA are included on this map

In response to extremely heavy demand for housing in the Detroit and Washington, D. C., areas, a special field office has been established in the Barlum Tower Building, Cadillac Square and Bates Street, Detroit, under *Colonel F. Charles Starr;* and in Temporary Building 2, 19th and "D" Street, N. W., Washington, under *Oliver C. Winston*, Regional Director of Region 3. These are not considered as permanent Regional Offices. *O. R. Olmsted* is now Acting Regional Director at Chicago.

Air Corps Appointments

Because of the great expansion of the Air Corps activities, there have been many appointments of members of the Technical Planning Professions to positions as commissioned officers for ground service. As of the date of preparing this report, some vacancies remain to be filled. Architects, Architectural Renderers, and Landscape Architects should be especially interested in the vacancies for Map Officers (to prepare and revise maps), and Camouflage Officers (for protective concealment and camouflage work on military installations and activities).

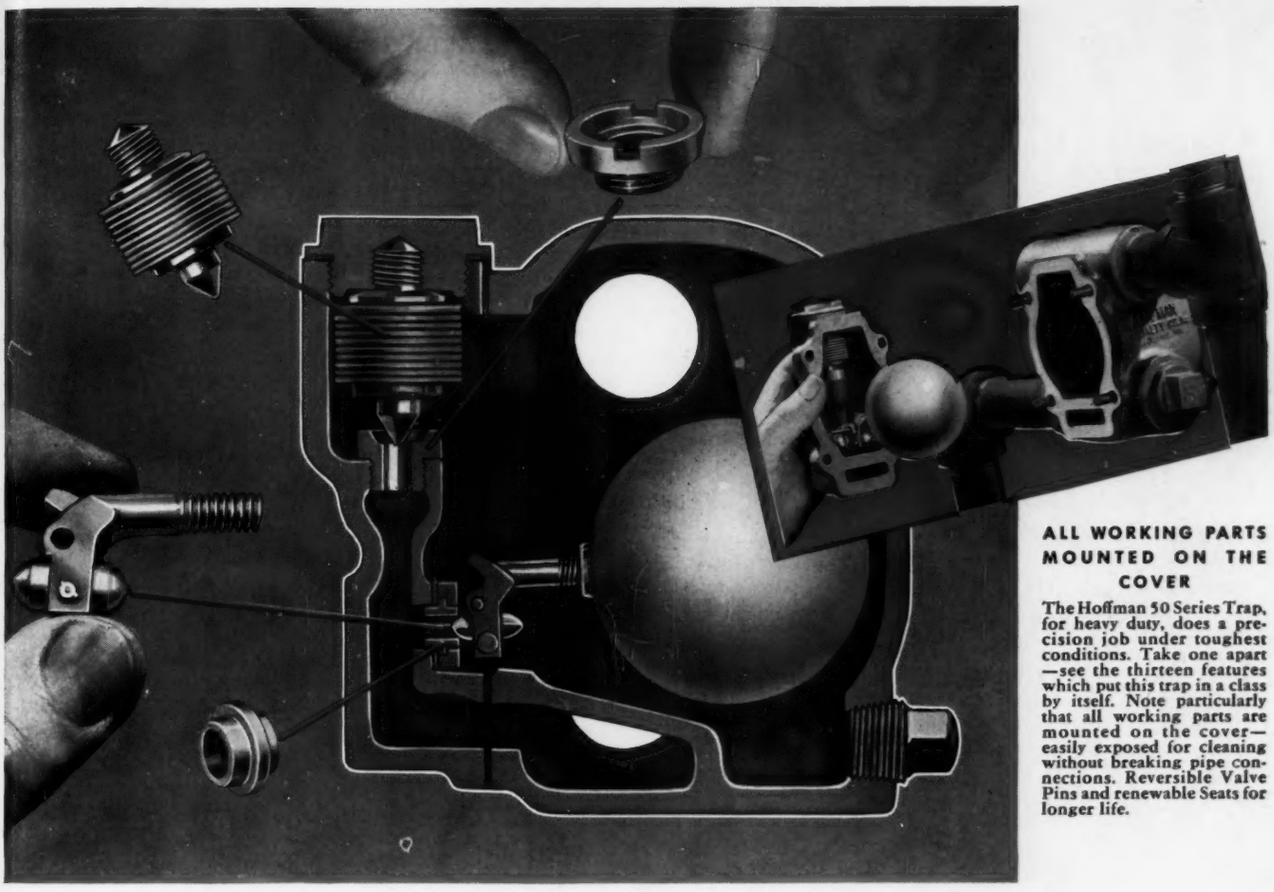
The qualifications for applicants for these appointments are being very thoroughly analyzed by representatives of the Air Corps, and only those men with exceptional experience and ability should consider themselves as qualified.

The newly-commissioned Officers are being sent to a training school for a course of lectures extending over a period of approximately three months, covering subjects of camouflage and mapping. It is evident that a great many applications have undoubtedly been received from men who are not fully qualified for this highly specialized kind of work.

Revised Fees On Housing

Under date of April 24, 1942, through the office of the National Housing Agency and the Federal Public Housing Authority, a new revision in the schedule of fees has been published, on the basis of which technical planning services will be employed. This document is titled "Architect's Contract Form (Lanham and Public Nine Projects)." Copies should be available at the offices of the local Public Housing Authorities and

(Continued on page 108)

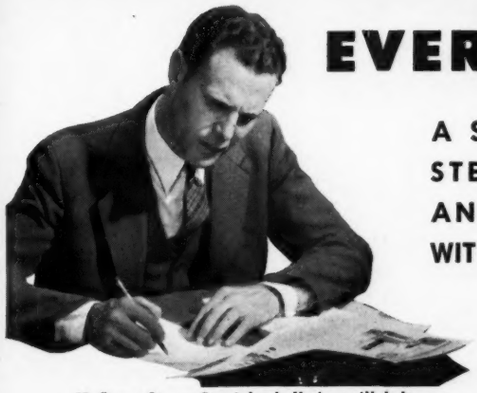


ALL WORKING PARTS MOUNTED ON THE COVER

The Hoffman 50 Series Trap, for heavy duty, does a precision job under toughest conditions. Take one apart—see the thirteen features which put this trap in a class by itself. Note particularly that all working parts are mounted on the cover—easily exposed for cleaning without breaking pipe connections. Reversible Valve Pins and renewable Seats for longer life.

EVERY PART RENEWABLE!

A SPECIFICATION OF HOFFMAN STEAM SPECIALTIES IS DIRECT AND PRACTICAL COOPERATION WITH OUR WAR ECONOMY PROGRAM



Hoffman Steam Specialty bulletins will help you select the right heating equipment on your next job.

Vital metals go into the Specialties necessary to steam heating system operation. It is good business judgment and practical patriotism to use those which give better service longer . . . *and which can be repaired when needed with little expenditure of critical materials!*

Hoffman Steam Specialties conform to these standards. They provide for full utilization of every last BTU . . . because they are designed that way! They can be maintained at full efficiency for years by inexpensively replacing those parts in which long usage is bound to cause wear.

This is genuine cooperation with our war economy. Instead of junking a complete unit, the reversing or replacement of perhaps a single part will put a Hoffman Specialty back in operation.

Hoffman offers Steam Traps in a complete capacity and pressure range . . . a full line of Air and Vacuum Valves for venting heating units and mains . . . and Vacuum and Condensation Heating Pumps. Detailed information on each is given in illustrated bulletins—send for your copies. Hoffman Specialty Company, Dept. PP-6, 1001 York St., Indianapolis, Indiana.

INTERCHANGEABLE THERMOSTATS

Many Hoffman high and low pressure traps have Bellows Thermostat, Valve Pin and Seat combined in a single unit, easily removed for cleaning or inspection. The Thermal Unit can be replaced without adjustment and interchanged between valve bodies of the same size.

HOFFMAN *Controlled Heating*

VALVES, TRAPS, VACUUM AND CONDENSATION PUMPS, FORCED HOT WATER HEATING SYSTEMS

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(Continued from page 100)

at the Regional FPHA Offices, the addresses of which are contained on page 203 in the April issue of PENCIL POINTS. The following information should be considered as supplementary to the discussion on "Fees for Technical Planning Services" also contained in the April issue. In order fully to understand this proposed schedule and its application to specific projects, the sheets dated April 24, 1942, from the Office of the Federal Public Housing Authority, should be analyzed in detail, together with the contract forms No. 927 and No. 992 referred to in the following schedule of fees as now revised:

"Change in Schedule of Fees. For all contracts to which Form FPHA 927 is applicable as outlined above, and for which negotiations on the basis of the March 10, 1942 schedule of fees was started prior to the date hereof, the aforementioned fee schedule shall govern; but on all other contracts to be negotiated on Forms 992, the fees shall be established on the basis of lump sums per dwelling unit as follows:

Dwelling Units*	Architects' Lump Sum Fee Per D. U. Form 927**	Form 992**
Up to 25	$142	$107
50	123	92
75	106	80
100	94	71
150	83	62
200	77	58
300	69	52
400	62	47
500	57	43
600	53	40
800	48	36
1000	44	33
1200	41.50	31
1500	39	29

The further statement is contained in this document of April 24, 1942, that "for well considered reasons, neither Form FPHA 927 nor Form FPHA 992" [these two forms refer to contract forms] "stipulate the fee basis upon which Architects engage their professional collaborators such as Landscape Architects and Engineers." For the information of the professions of Architecture, Engineering, and Landscape Architecture it would be highly desirable that these reasons be set forth. It is unfortunate that this schedule of fees has been established without some further explanation, for the benefit of the collaborating professions as to the method of arriving at this schedule. (Reference should be made to the discussion of "Fees for Technical Planning Services" contained in the April issue.)

"*For number not given above, the amounts shall be correctly interpolated. This may be done by plotting the above data on graph paper connecting with a curved line. For computing the architect's fee on Form FPHA 992, four (4) dormitory units shall be regarded as the equivalent of one (1) family dwelling unit.

"The fees indicated in this column shall include all work described in the contract (except reimbursable items) in connection with the site plan, site improvements, dwelling units (for Form FPHA 927 only), operating and community facilities and buildings on the site, and all other items incidental to project development, except off-site facilities, utilities, or other features."**

Federal Works Agency

The reorganized Federal Works Agency, to which the activities of the Defense Public Works Administration were transferred, also takes over the work of the old Public Works Administration. This organization will be concerned, through its four branches (Public Roads Administration, Public Works Administration, Public Buildings Administration and Work Projects Administration) primarily with construction other than housing for war workers, which is in the province of the National Housing Agency.

The new Federal Works Agency as now reorganized will have Regional offices, probably seven in number, at strategic locations in the United States.

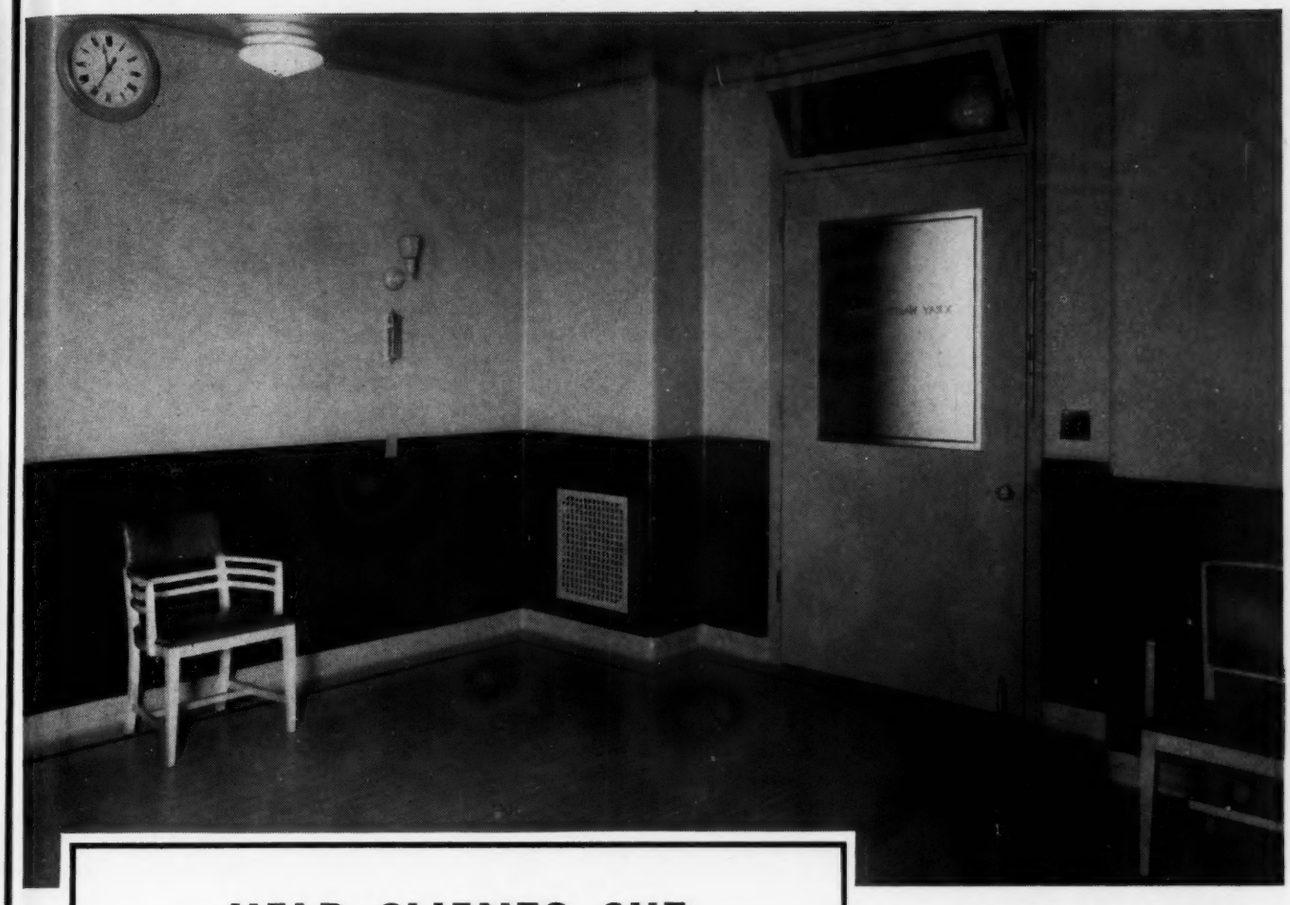
Corps of Engineers

The new Architect-Engineer-Management form of contract presents a number of interesting phases in the technical planning procedures, to which qualified members of the Technical Planning Professions are rapidly adjusting themselves. Copies of this form of contract can, in all probability, be procured through the office of Public Relations in the Corps of Engineers in Washington, and probably also through the division offices of the Corps of Engineers.

Information Releases

The release of pertinent information concerning defense projects is becoming more limited. One of the important sources of information concerning housing for war workers is through the Information Division of the *Federal Public Housing Authority*, Room 6305, North Interior Building, Washington, D. C. These releases contain much up-to-the-minute and otherwise valuable information of direct concern to the members of the technical planning professions. These releases have

(Continued on page 110)



HELP CLIENTS CUT WALL MAINTENANCE COSTS

and give them wall beauty, too!

HOSPITAL-CLEAN! *That's the best way to describe the modern walls of this X-ray Waiting Room in the Blodgett Hospital, Grand Rapids, Michigan. They've been remodeled with a wainscot of Armstrong's Linowall . . . a wainscot treatment that will save wear and tear on walls, cut maintenance costs to a minimum. The floor is Armstrong's Jaspé.*

. . .

WHEN you specify Armstrong's Linowall, you specify walls that are not only beautiful, but walls that make a real contribution to lowered maintenance costs. That's something your clients will appreciate in times like these.

To begin with, Linowall is a durable, linoleum-like material that never needs refinishing. It has a smooth, factory-lacquered surface that is dirt-resistant. Wiping with a damp cloth plus occasional soap and water washing is all the cleaning care this wall covering requires.

But Linowall has other advantages. In remodeling work, for example, where you may be dealing with an irregular layout having numerous inside and outside corners, this flexible material will provide a smooth, sleek wall surface throughout the building and at the same time, Linowall helps to add to the smart appearance and beauty of any interior.

Furthermore, Linowall with its wide range of colors offers you complete freedom in design. It is easily installed over any sound plaster area and, if properly cared for, gives your clients years of service.

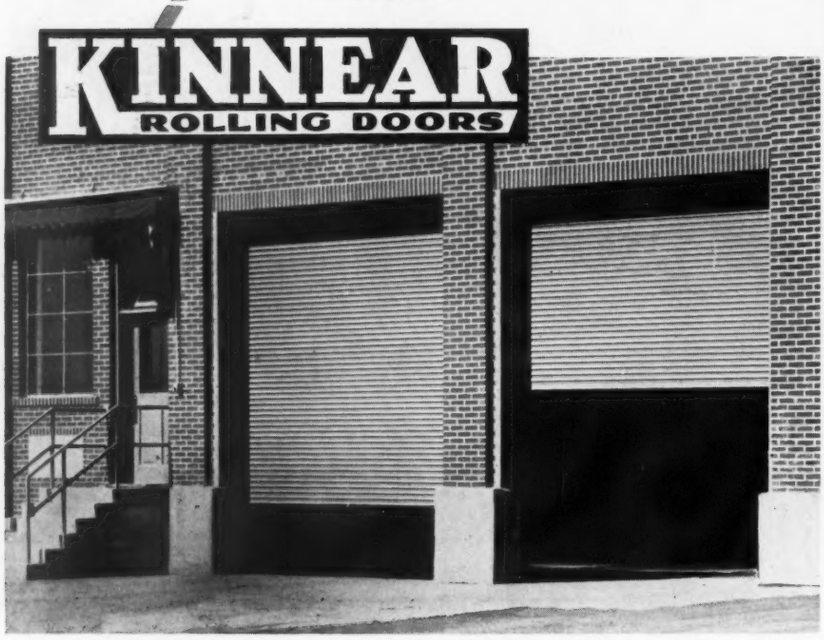
Why not get complete facts on this modern wall covering now? See "Sweet's" or write directly to Armstrong. Then, next time, for walls that are practical, economical to maintain, and decorative, specify Armstrong's Linowall. Address Armstrong Cork Company, Floor Division, 1232 State Street, Lancaster, Pa.

ARMSTRONG'S LINOWALL

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM AND RESILIENT TILE FLOORS

OLD ASSOCIATES *in meeting* NEW NEEDS

THE NEW PENCIL POINTS now makes its bow—22 years after the first issue of the magazine, and nearly 20 years since Kinnear Rolling Doors were first advertised in its pages. Kinnear Doors (originated almost half a century ago) and Pencil Points are old associates in coping with new and changing needs!



Because their advantages are so fundamental and *far-reaching*, Kinnear Rolling Doors meet new and even highly specialized requirements as completely as they fill everyday door needs. And they've been *proving* their advantages, from the day Kinnear originated the interlocking slat door nearly a half century ago, right down to current, stringent wartime demands for door efficiency and protection. Kinnear's space-saving, time-saving *coiling upward action* and rugged *interlocking-slat design* are the basic reasons for the continued preference for Kinnear Rolling Doors. They're readily adaptable for motor operation, with any number of remote control stations. Built any size, for all types of construction, for old or new buildings. To meet today's door needs on every point, specify Kinnear. Write for catalog containing full information today!

THE KINNEAR MANUFACTURING COMPANY
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been heretofore referred to as coming from the Division of Information in the FWA, which is now confined largely to Defense Public Works Projects.

Public Works Reserve

Pending the passage of legislation to enable appropriations for Post-war Planning, money is being made available through the National Resources Planning Board to carry on certain work in a few specially selected areas, with the main objective of creating a "Shelf of Projects" on which further planning may be undetaken as and when the time is opportune.

Much of this work was carried on by the Works Progress Administration, and is now being continued through the joint cooperative efforts of the National Resources Planning Board and the Federal Works Agency.

NON-DEFENSE BUILDING IS NOT FROZEN

Before the actual text of WPB Conservation Order L-41, April 9, 1942, was made public, a large amount of confusion and inaccurate publicity appeared in newspapers and magazines. This publicity created a false impression that Order L-41 absolutely prohibited all types of non-defense construction.

It is neither the intent nor the meaning of the order to forbid all civilian building. As a matter of fact, a large volume of private building activity is permitted.

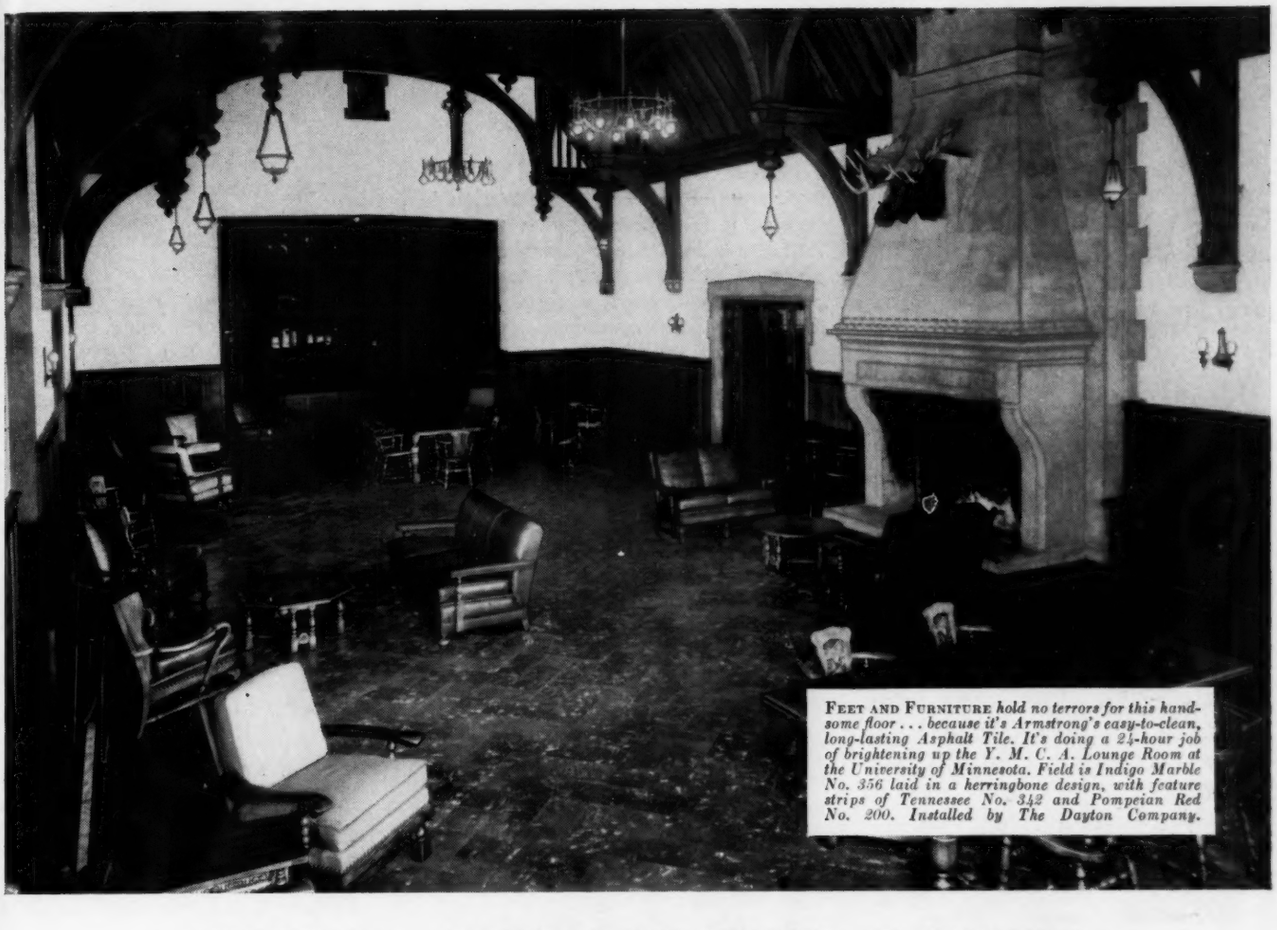
A careful reading of Order L-41 reveals that it allows the following major types of building work *without federal permit* anywhere in the United States:

1. MAINTENANCE. The upkeep of *any building* (home, farm, store, etc.) to render it in sound working condition, without limit as to cost.

2. REPAIR. Restoration without change of design of any portion of *any building* (home, farm, store, etc.) to sound working condition when such portion has been rendered unsafe or unfit for service by wear and tear, damage or other similar causes, without limit as to cost.

3. RESIDENTIAL RECONSTRUCTION. The reconstruction or restoration of a *residential building* which provides living space (such as single or multiple dwelling units, dormitories, hotels, and apartment houses) which has been damaged or destroyed since December 31, 1941 by fire, flood, tornado, earthquake, act of God or the public enemy, without limit as to cost.

(Continued on page 112)



FEET AND FURNITURE *hold no terrors for this handsome floor . . . because it's Armstrong's easy-to-clean, long-lasting Asphalt Tile. It's doing a 24-hour job of brightening up the Y. M. C. A. Lounge Room at the University of Minnesota. Field is Indigo Marble No. 356 laid in a herringbone design, with feature strips of Tennessee No. 342 and Pompeian Red No. 200. Installed by The Dayton Company.*

WHERE COLLEGE MEN GATHER THE FLOOR TAKES IT HARD

Armstrong's Asphalt Tile Floors Prove Their Stamina at the University of Minnesota

THE REAL TEST for any floor's durability is where many people congregate, where the constant tramping of thousands of feet cross and recross the club, the crowded store, the busy office.

Armstrong's Asphalt Tile is a floor that takes grueling traffic day after day. This modern resilient flooring material has proved, in hundreds of such places, that it stands up under the most severe punishment . . . without losing its fresh and colorful good looks! Armstrong's Asphalt Tile has proved, too, that it can be used safely on concrete subfloors in direct contact with the ground . . . because it isn't affected by moisture and alkali.

The ability to "take it" means, of course, that maintenance is really economical . . . a feature your clients want. They'll appreciate, too, that the *initial* cost is low—even though this floor has the appearance of costly luxury.

With a broad range of plain and marble colorings and varied sizes and shapes at your disposal, and because these floors are installed a block at a time, there's virtually no limit to the variety of effects that can be worked out to meet the exact requirements of each installation.

GET ALL THE FACTS, either in "Sweet's" . . . or by writing for the free, illustrated booklet: "Low-Cost Floors with a Luxury Look." Armstrong Cork Co., Resilient Tile Floors Dept., 1206 State Street, Lancaster, Pa.

ARMSTRONG'S ASPHALT TILE

The low-cost floor with the luxury look

MADE BY THE MAKERS OF ARMSTRONG'S LINOLEUM

"MINWAX for floors and trim saves precious days on Defense Housing"

That is ONE reason architects are specifying MINWAX—and have specified it on more than 55 defense jobs. SPEED, SPEED and more SPEED. But Minwax saves money too—and it produces—not a make-shift finish but a SUPERIOR finish that will LAST with ordinary care.

If you are working on a defense housing project we can save YOU valuable time — we'll give you the benefit of our experience on scores of similar jobs—and we'll guarantee your contractor that he will get prompt deliveries.

Write for complete information to Minwax Company, Inc., 11 West 42nd Street, New York.

FACTS ABOUT MINWAX FLAT FINISH

- The original Penetrative Stainwax Finish
- Seals, Protects and Preserves
- Finish becomes part of wood, resists mars and scratches
- Can be retouched and renewed without lap
- In clear and 11 colors

Specified by architects for more than 30 years

TRADE MINWAX MARK

Waterproofings · Dampproofings · Caulkings · Wood Finishes · Waxes · Protective Coatings

COMPLETE CATALOGUES IN SWEET'S

(Continued from page 110)

4. BUILDING UNDER CONSTRUCTION. Work on any *building* begun prior to April 9, 1942 may be completed. Although not a part of the order, WPB has assumed the right to stop projects if the scarce materials to be used in them can be put to more effective use in the war program. It is generally believed that this step would not be invoked with the possible exception of very large operations.

5. NEW RESIDENTIAL CONSTRUCTION. New work on a *residential building* which provides living space (such as single or multiple dwelling units, dormitories, hotels, and apartment houses) may be undertaken up to $500. The order cannot be construed to mean $500 for each apartment in a multiple dwelling. The limit applies regardless of the number of tenants.

6. NEW FARM CONSTRUCTION. New work on *farm building* which is used in the production of agricultural products (such as those used by farmers, planters, ranchmen, dairymen, nut growers, fruit growers, etc.) may be undertaken without federal permit if it costs less than $1,000. Residential work on farms would be limited as in (5) above.

7. NON-RESIDENTIAL AND NON-FARM CONSTRUCTION. New work on *buildings other than residential and farm* (such as shops, stores, industrial, recreational, institutional, highway, utilities, etc.) may be undertaken without federal permit if it costs less than $5,000.

The foregoing types of non-defense buildings require no permits to "Begin Construction" within the limits given above. If priorities assistance is required, however, an application for an appropriate preference rating order or certificate should be made in the usual manner.

In addition to the work allowed without a permit there is a large amount of building which is necessary to the war effort which can be constructed, provided the WPB deems it important to the war effort or if it supplies, in their eyes, an essential civilian need.

CITY PLANNING

Massachusetts Institute of Technology, Cambridge, Mass., has announced the inauguration of a *four-year undergraduate curriculum leading to the degree of Bachelor in City Planning* to be available in September, 1942.

The new undergraduate program, under the direction of *Professor Frederick J. Adams*, will include preparatory subjects in engineering and in the natural and social sciences.

Job Require a WATER SYSTEM?

Let Fairbanks-Morse Engineers Help You

● When the site is beyond urban water mains . . . when a water supply system must be wisely chosen and properly installed before the structure you've designed is usable, let us collaborate with you.

We know the answers to *all* the questions which may arise, whether your problem is supplying water under pressure for a tiny week-end cottage or for a huge factory or housing project. We'd *have* to know, because we manufacture and sell a *complete* line for every imaginable pumping purpose.

Fairbanks-Morse Automatic Home Water Systems are made in all types and in a full range of capacities. There are F-M Pumps for *every* need, large or small. And we know the *power* end of pumping, too; we manufacture all types of Diesel engines, generators, and motors.

Call on us whenever consultation with highly specialized engineers would be helpful. There's no cost, no obligation. Write Fairbanks, Morse & Co., Dept. F188, 600 S. Michigan Ave., Chicago, Illinois.

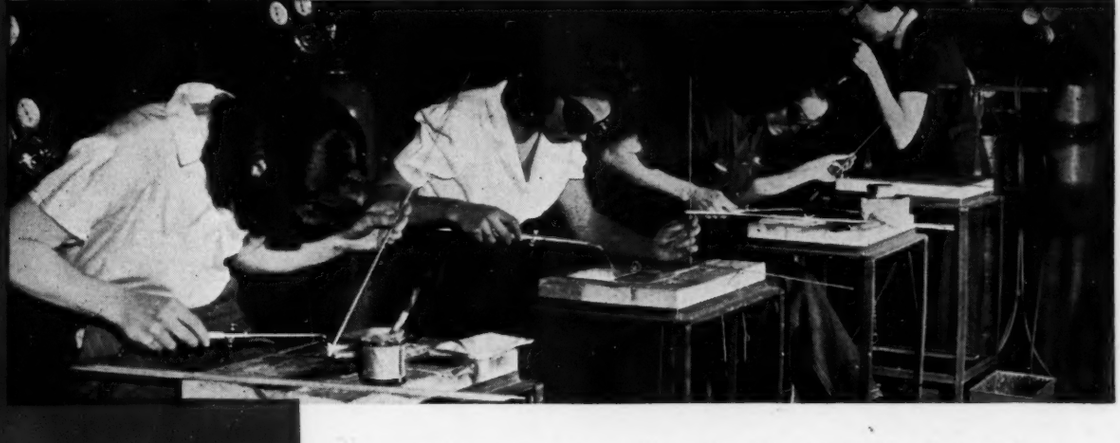
FAIRBANKS·MORSE & CO.

Manufacturers of Precision Equipment for 112 Years

IMAGINEERING: GETTING OUT OF THE GROOVE

THESE FOUR YOUNG WOMEN, so earnestly mastering the art of torch-welding aluminum, suggest that someone, somewhere, has checked out of the groove and started some practical Imagineering.

THEY PROVE what we've been saying for years: Alcoa Aluminum is easy to fabricate. The man who started the school where these girls are learning, and graduating to war jobs, simply had imagination enough to believe that



easy really means *easy*. Then he did something about it!

IMAGINEERING is letting your imagination soar and then engineering it down to earth. It is ingenuity in modern dress.

IT IS THE THING that has enabled the aluminum industry to keep on top of a plane schedule, increased tremendously in numbers, but also calling for almost twice as much aluminum per plane as the average plane needed two years ago.

IT IS WHAT EVERY ONE OF YOU are doing on your war job. Simplification, standardization, training. New methods, new materials, new records.

THIS WAR is showing Americans what they really can do if they try.

LET'S MAKE a vow to carry this same spirit over into postwar America. We'll all have the skills, the habit of work, the thrill of doing. There will be lots of aluminum to make into better products than peacetime America ever knew. It will be a great day for Imagineers.

Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.

★ SO MUCH SO SOON ★

ALCOA ALUMINUM

· PROGRESS

PRODUCTS

The columns of this section are open to any manufacturer who has a new product of interest to the architectural profession. Manufacturers wishing to have their product shown here should send a glossy photograph, together with information covering the following aspects of the product: function, characteristics, installation, cost, and a description of what A.I.A. literature is available.

SLANT ROOF LOUVERS. The Leslie Welding Co., 2943 Carroll Ave., Chicago. (Fig. 1.)

Function: Louvers to fit roofs of any pitch. **Characteristics:** Copper bearing, galvanized steel, 26 ga. A 16-mesh bronze fly screen keeps out insects. Baffle inside protects against snow and rain. **Installation:** Shingles nailed over wide integral flashing. Drip flashing assures weathertight seal. **Cost:** $4 and $6, depending on size. (Models have 2″ x 10″ and 2″ x 20″ openings.) **Literature:** 4-page folder shows installation, application, describes other louvers made by the firm.

DRAFTING PENCIL. Tec Pencil Co., 9381 Olympic Blvd., Beverly Hills, Calif. (Fig. 2.)

Function: Exclusive feature is the full length lead tube of spring brass which is driven downward into the chuck point by a screw - operated mechanism. This "squeeze action" does not mar or ring the leads and cause them to break. **Appearance:** The pencil barrel is made of Tenite, a lightweight plastic. To designate the lead degrees, colored rings are provided. These may be quickly interchanged, and correspond in color with the code system used in connection with Tec drawing leads. **Cost:** $1 each; 12 leads in a tube, 75 cents. Double-end pencil, $1.50. Tec drawing set (a drafting pencil, an eraser, and 12 drawing leads in tray box) $1.50. **Literature:** Circulars, printed in color, describe the pencils, leads.

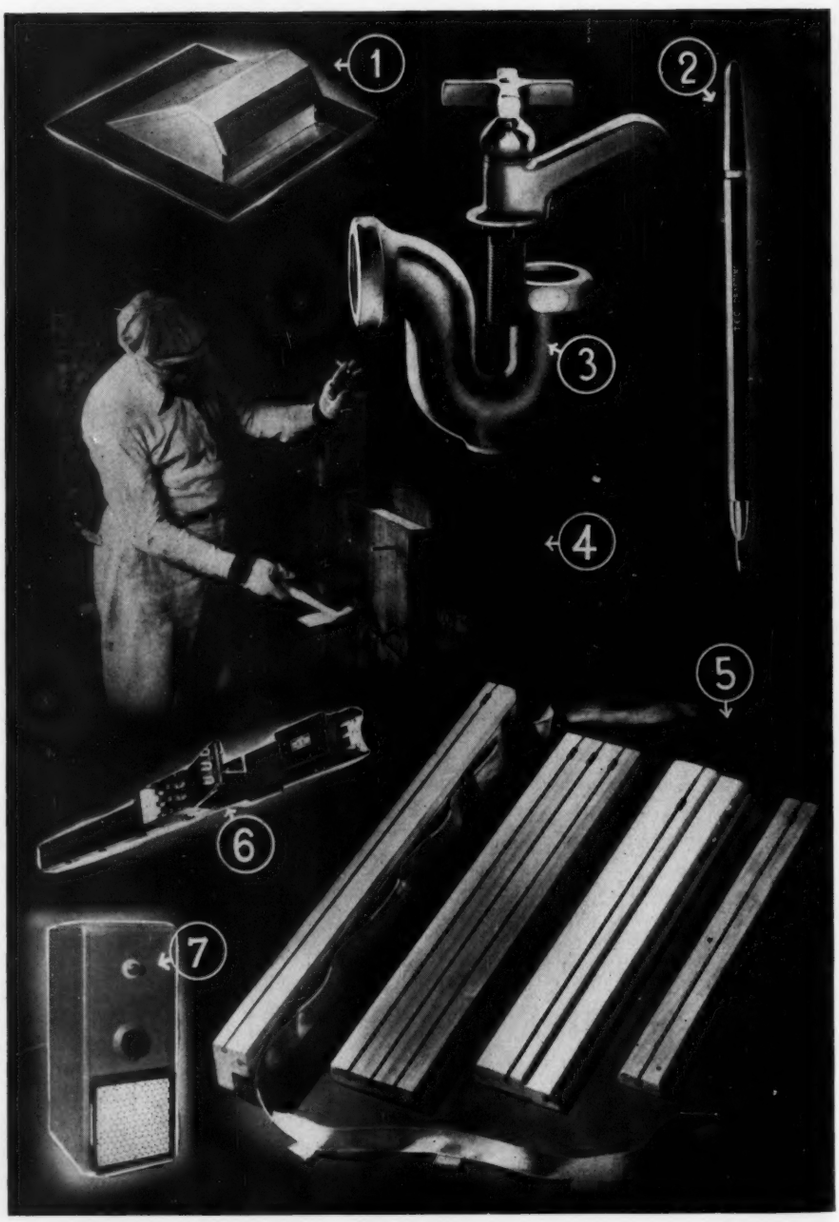
PLASTIC AND MALLEABLE IRON PLUMBING FITTINGS. Crane Co., 836 S. Michigan Ave., Chicago. (Fig. 3.)

Substitution of non-critical materials makes unnecessary the hardship of getting along without important sanitary plumbing fixtures. In some instances differences in characteristics between different materials call for considerable change in design and factory production. The matter of finishing creates another problem. Metallic finishes such as chromium or nickel cannot be used. Part of the answer evolved by the Crane laboratories includes faucets, traps, and shower heads of cast iron. Spuds made of malleable iron with rust-resisting coating provide another solution. Soap dishes, towel bars, lavatory legs, shower heads, and even faucets and drains heretofore made from brass are now being redesigned in modern plastic.

LOW TEMPERATURE INSULATION RELIEVES PRESSURE ON CORK SUPPLY. Owens-Corning Fiberglas Corp., Toledo, O. (Fig. 4.)

Function: Known as "AE Board," it is used for roof insulation and the war-created demand for refrigeration without using cork, now under rigid priorities. **Characteristics:** Asphalt enclosed glass fibers compressed to a density of 6 lbs. per cu. ft. Conductivity 0.265 Btu./sq. ft./hour/-degree/inch at 60° F mean temperature. Boards are 1′-0″ x 3′-0″, in

(Continued on page 116)



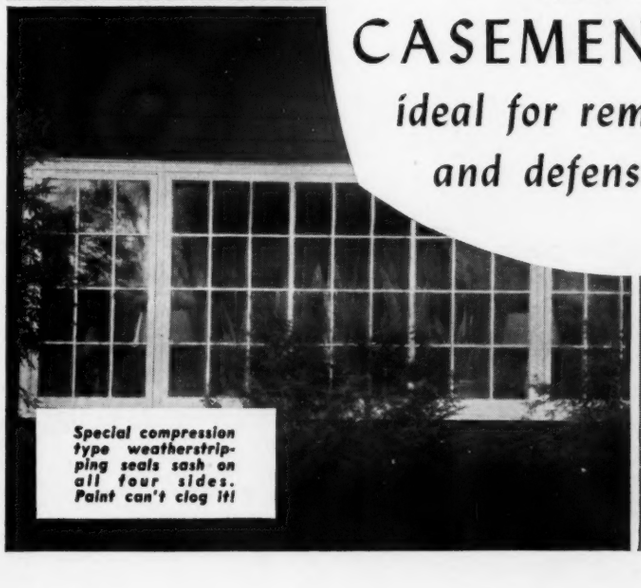
Units come completely assembled. No waiting for hardware, sash weights, etc.

Pre-fitting at factory cuts installation time to about 20 minutes per unit.

Rolco

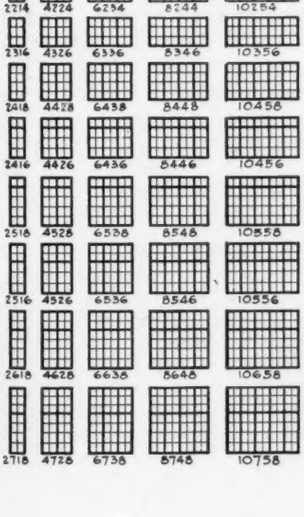
ALL WOOD CASEMENT UNITS

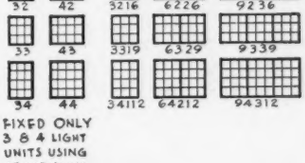
ideal for remodeling jobs and defense housing!



Special compression type weatherstripping seals sash on all four sides. Paint can't clog it!

Corner and picture windows, bays and French windows—all readily combined from stock-size units.





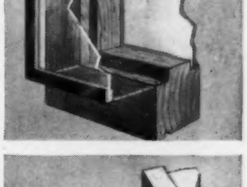
FIXED ONLY 3 & 4 LIGHT UNITS USING 9"x12" GLASS

TABLE OF Rolco CASEMENT UNITS

WRITE TODAY for FREE full-size detail and schedule of sizes on Rolco Casement Units. Address Dept. 162.

ROLSCREENS are the original inside screens that roll up and down like window shades. Always in place. Practically invisible, they preserve the beauty of sparkling glass. An *exclusive* Rolco feature!

DUAL GLAZING consists of a *single*, removable panel of DSA glass. So inconspicuous, it can be left on sash all year long. Does not interfere with ventilation. Efficient. Easy to clean. Practical.



SPECIAL WOOD FRAME with recessed liner. Both sash and frame are of WP Pine, *toxic treated*. This construction assures a strong, rot-resistant window. Frames are 20% *oversize* — saving on wall cost.

A Pella PRODUCT

MADE BY ROLSCREEN COMPANY • PELLA, IOWA

1", 1½", 2" thicknesses. **Installation:** May be cut with a saw. Boards are asphalt dipped during installation. Wood skewers act as dowels. **Literature:** 16-page catalog describes technical features, installation on walls and ceilings, surface finishes, outline specifications.

WASHABLE WATER PAINT (Kem-Tone). Sherwin-Williams Co., Newark, N. J.

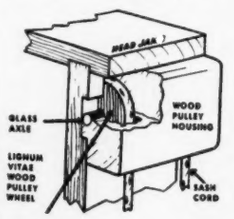
Function: This oil-less interior wall finish, which uses water as a thinner, can be applied directly over practically any type of surface without priming. Feature is its ability to cover old wall paper without the bother and expense of removing the paper. **Application:** Kem-Tone is brushed on. The first drying operation, which takes about an hour, is the evaporation of the water, followed by a process in which the character of the resin undergoes a change, resulting in a completely washable waterproof surface. This "curing" action takes at least 48 hours. In most cases one coat is sufficient. **Characteristics:** Eight pastel colors, four deep colors, and white are available. Additional shades obtainable through intermixture of the standard colors. Packaged in paste form in quart, gallon, and five-gallon containers.

PLUG-IN DUCT FOR MANY OUTLETS. Square D Co., 6060 Rivard St., Detroit, Mich. (Fig. 6, page 114.)

Function: The Saflex plug-in duct provides accessibility of electrical energy in a convenient and economical manner. **Characteristics:** Available in capacities of 250-1,000 amperes, in 2- and 3-wire single phase, 3-phase, and 4-wire service. Round, tubular buses are used for the 250, 375, and 750 ampere capacities; solid, round bars for 500 and 1,000 amperes. Round bus bars are contained in a steel housing produced in 10′ lengths. Six openings on each side accommodate twelve plug-in units.

NON-CRITICAL MATERIALS IN DOUBLE HUNG WINDOW UNIT. Andersen Corp., Bayport, Minn.

Critical materials have been 95 percent eliminated from a low-cost double hung window unit made by this firm, yet the window is effectively weatherstripped, and true weight counterbalancing has been retained. Pulley wheels are self-lubricating, lignum vitae wood, with heat treated Pyrex glass axles mounted in a wood housing. The counterbalancing weight is made of an iron ore concrete. A high grade sash cord is used in place of chain. A pressure-sealed weatherstrip, attached to the sash stile through diagonal slots, moves sideways under the pull of the sash weight, causes constant pressure of the sash against the stops, and checks air leakage.

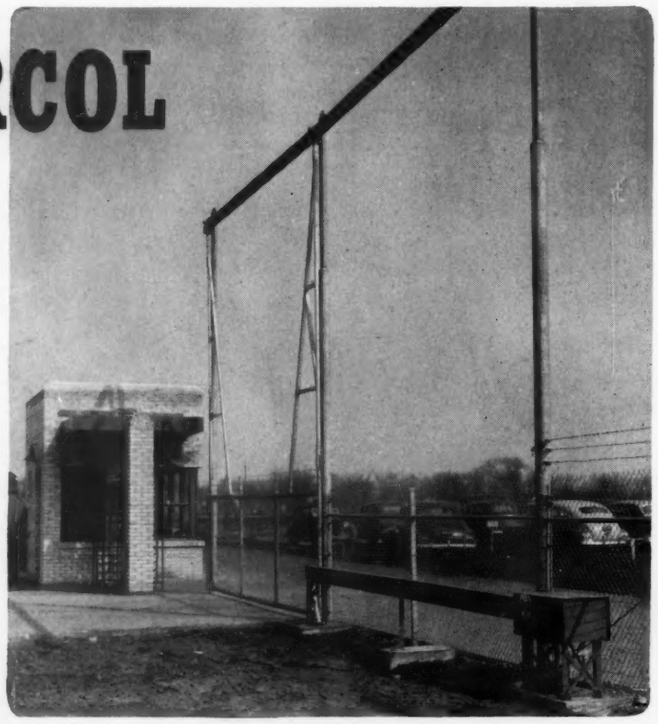


HEATING UNIT FOR DEFENSE TYPE HOMES. Gar Wood Industries, Detroit, Mich. (Fig. 7, page 114.)

Model 75 Tempered-Aire unit delivers 60,000 Btu at the registers. Air delivery is 750 cfm at 160°F. Comes within the Government's limit of 26" x 26" plus allowance for burner enclosure. One motor operates both blower and fuel unit for burner. The rear view in Fig. 7 shows filter, stack connection, and inspection port.

(Continued on page 118)

BARCOL



Electric GATE OPERATOR FOR A DEFENSE PLANT...

Through this entrance pass men, trucks, and railroad cars. The main gate is supported on truss frames from a high overhead track, and is controlled from inside the gate house by a simple push-button control. The Barcol Electric Gate Operator is mounted in a weather-proof housing alongside the fence.

PROTECTION • TIME-SAVER...

An electric gate operator not only permits the guard to handle the gate promptly and efficiently, but also assures long life and minimum maintenance on the gate itself. Barcol Electric Operators are available for swinging and sliding gates, and also for swinging, sliding, overhead, and steel rolling doors. Consult your Barcol representative for further details.

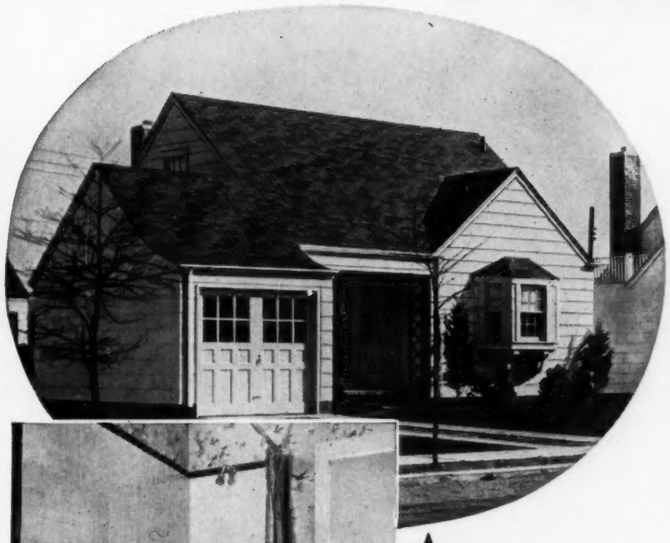
BARCOL

BARBER-COLMAN COMPANY

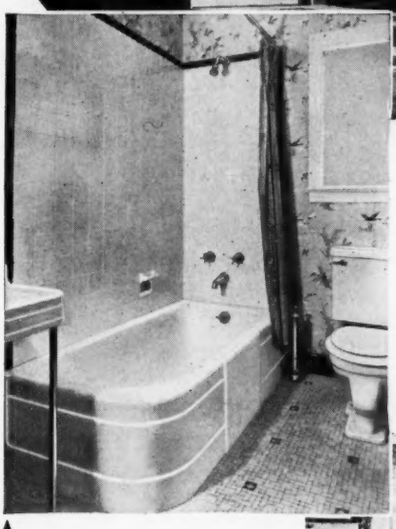
188 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

Write "CRANE" IN YOUR DEFENSE HOUSE SPECIFICATIONS



One of the homes in the Gibson Defense Housing Project at Valley Stream, Long Island, N.Y. These homes are built to sell for $4,800 complete, including lot and are equipped throughout with Crane plumbing and heating.

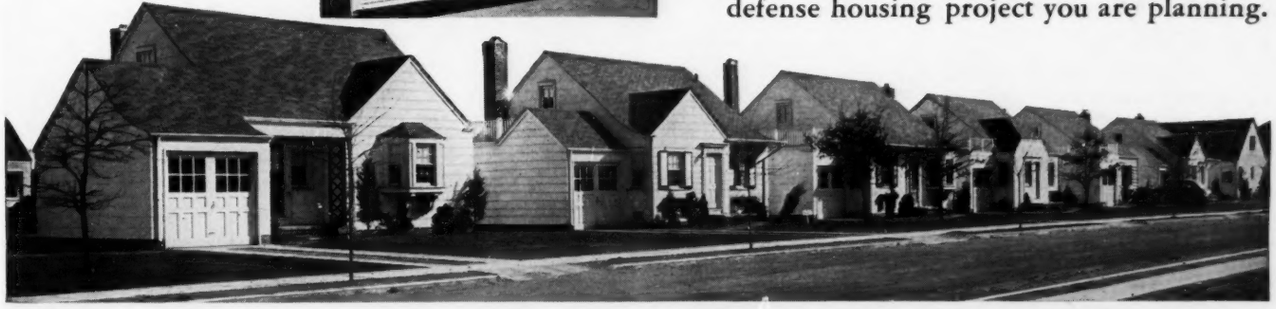


Crane bathrooms in one of the Gibson homes. The bathtub is the Coronova *complete with shower. The lavatory is the* Neuday *and the closet the* Neuton.

This charming kitchen in one of the Gibson homes has a Crane flat rim sink installed in a tile counter top.

Defense housing projects mean low costs—they mean speedy construction—but they should also mean quality, for these homes will play an important part in the post-war life of America. That architects recognize this responsibility is evident by the large number of defense workers' homes in which Crane plumbing has been installed.

The Crane line includes a range of fixtures especially designed and manufactured for low-cost homes. You will find that these fixtures are priced to meet the cost requirements of your defense housing projects, and "Crane" written into your specifications is your assurance that the houses you design will give longer—better service. Be sure to check your Crane Architects' Catalog or talk to the Crane Salesman on any defense housing project you are planning.



CRANE

CRANE CO., GENERAL OFFICES:
836 SOUTH MICHIGAN AVENUE, CHICAGO

PLUMBING • HEATING • PUMPS
VALVES • FITTINGS • PIPE

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS

BLACKOUT VENTILATION. Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago.

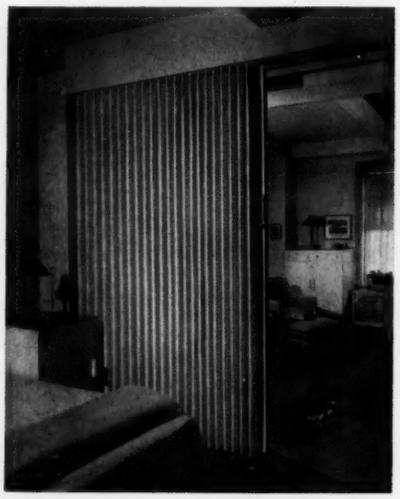
The need for ventilation grows acute in buildings with painted, closed, or otherwise blacked-out windows. A typical solution which has been engineered on the West Coast, is featured in a new bulletin from the Ilg firm. Using standard Ilg ventilators, special blackout hoods were fabricated by the contractor on location.

To replace windows as sources of fresh air, special hooded fresh air inlet louvers were designed and built.

With this system, there is no light transmitted through the roof ventilators or through the fresh air inlets. Since the system is dependent upon powered propeller fans for pulling in fresh air, the action is said to be positive under all types of weather conditions.

ACCORDION-TYPE DOOR. New Castle Products, New Castle, Ind.

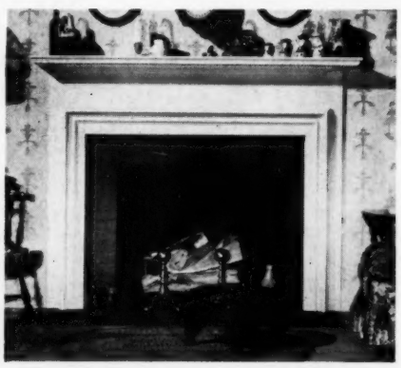
Function: Space-saving door eliminates need of allowance for swing area of conventional-type doors. **Installation:** Accordion-type metal frame travels on overhead track. A precision-built metal frame provides a foundation for the fabric covering. **Characteristics:** Fourteen units available in standard sizes; custom-built units also may be had. Each side of the opening may have a different color fabric to match the decorative scheme of the room it faces. Available in ten colors. **Literature:** Four-



page folder, in color, shows installations. Two-page sheet gives dimensioning data, installation details.

LOW-COST WOODWORK. Curtis Companies Service Bureau, Clinton, Iowa.

New, low-cost woodwork of good architectural detail, designed by well-



known American architects, is now being made in quantities by Curtis Companies Service Bureau. Designs are suitable for low-cost and war workers' housing, home modernization, etc.

Picture is one of the new mantels, which is carried in white pine. Other new items include china closets, entrance door frames, casement units, bay and picture windows, kitchen units.

(Continued on page 120)

Another airplane plant equipped with Bradley Washfountains — Architect: Albert Kahn, Inc.

REDUCES MAN-HOUR LOSSES IN WAR PRODUCTION PLANTS

Architects, engineers—builders of the great plants turning out our war machines well know that the maximum production can only be attained if man-hour losses are kept in check.

In this sense, the washroom facilities are as important as the machine tools. Physicians experienced in industrial work have found that Dermatitis—skin affection—is a known factor in causing man-hour losses and recommend regular sanitary washing as an important preventive measure.

Recognizing this fact leading architectural, engineering and building firms invariably make provision for Bradley Washfountains in washrooms to insure the utmost in sanitary washing facilities . . . BRADLEY WASHFOUNTAIN CO., 2277 W. Michigan Street, Milwaukee, Wisconsin.

SAVE CRITICAL MATERIALS

The deep bowls and pedestals of Bradleys are made of precast stone or marble, conserving critical metals. Each Bradley serves 8 to 10 persons simultaneously—taking the place of 8 to 10 conventional single-person wash basins, which require 24 piping connections (hot water, cold and drain) in place of only **3** needed for the Bradley,—again saving important metals.

Water from a central sprayhead provides clean running water to each person—and the self-flushing bowls carry the water away without chance of contamination. Used water cannot flow back into the system supply.

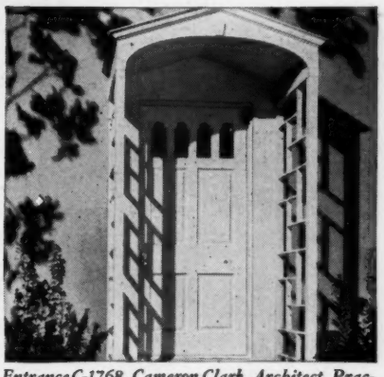
BRADLEY *washfountains*

WHAT—NEW WOODWORK LIKE THIS FOR LOW-COST BUILDING?

YES—IT'S "IN TUNE WITH THE TIMES"!

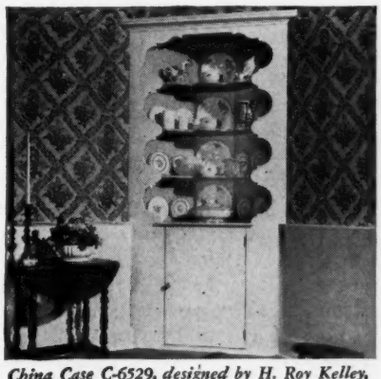
Curtis again makes woodworking news with new woodwork styles, carefully and accurately detailed . . . beautiful enough for the finest home . . . *at prices low enough for the most modest budget.* Here is your answer to the question of putting more beauty, more style, more quality into low-cost housing and remodeling! And remember, the price includes Curtis quality craftsmanship in stock designs. Here are just a few of the many styles available in the new low-cost Curtis woodwork line:

Mantel C-6059, designed by Willis Irvin, Architect. Note the careful detailing, the distinguished simplicity. This is low-cost woodwork, thanks to Curtis' standardization.



Entrance C-1768, Cameron Clark, Architect. Practical and beautiful, this new Curtis entrance shows that good design need not be expensive.

China Case C-6525, H. Roy Kelley, Architect. No dining room or nook need lack appeal when such woodwork is available for low-cost homes!



China Case C-6529, designed by H. Roy Kelley, Architect. This case may also be used in a straight wall by specifying rectangular back.

Entrance C-1765, Cameron Clark, Architect. Design of famous architects—plus Curtis production—makes such entrances available.

Mantel C-6076, Willis Irvin, Architect. Once, such a distinguished mantel was available only for higher price homes. Now, any home can have it!

1866

CURTIS WOODWORK

CURTIS WOODWORK IS SOLD BY RELIABLE DEALERS EVERYWHERE

Get all the facts about this new low-cost Curtis Woodwork — see for yourself why it fits the lowest cost home or any home, either new or modernized. Mail coupon for literature.

CURTIS COMPANIES SERVICE BUREAU
Dept. PP-6W, Clinton, Iowa

I want to know more about the new, low-cost Curtis Woodwork designs. Please mail me complete information.

Name.....

Address.....

City.....*State*.....

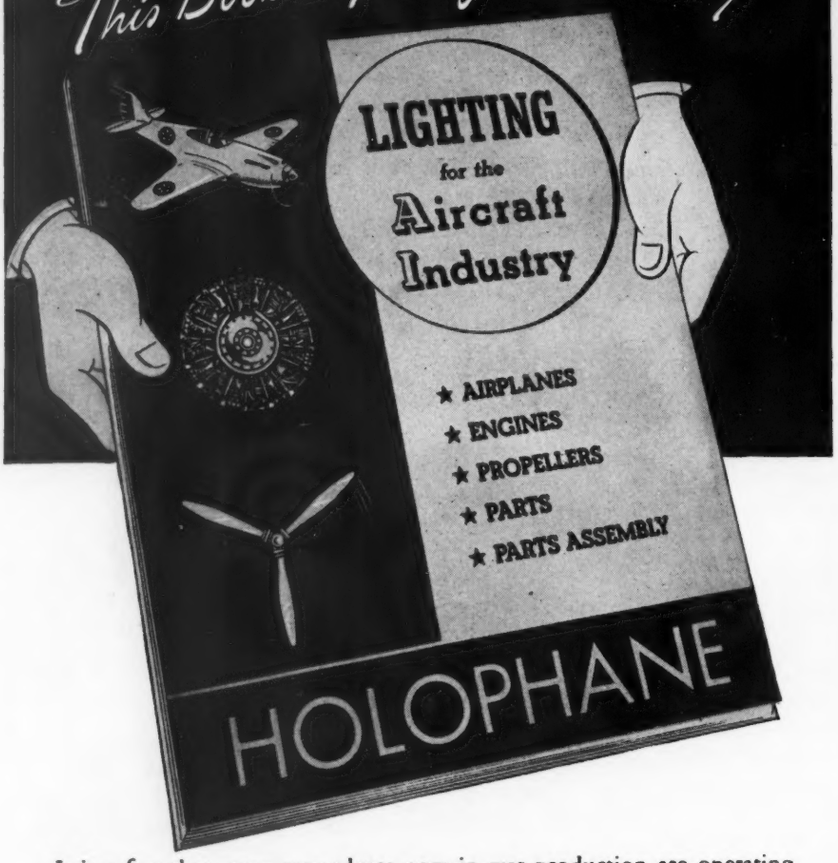
For AIRCRAFT PRODUCTION EXECUTIVES:

How to Plan the Most Efficient Plant Lighting

How to Get the Full Results of Your Planning

How to Figure Cost, Maintenance, Installation

This Book is Yours for the Asking



It is a fact that many new plants now in war production are operating with a fraction (some as little as one-half) of the illumination for which they planned and paid. This waste is unnecessary . . .

The new bulletin "LIGHTING FOR THE AIRCRAFT INDUSTRY" contains:

- *Comprehensive information on processes and economy in maintenance . . .*
- *Accurate tables for arriving at costs and economic comparisons of various lighting methods . . .*
- *Easy-to-use illumination charts (available for the first time) which give pre-determined information of expected lighting results.*

Send today for this important reference book, prepared by the Holophane Engineering Department. No charge.

Holophane

COMPANY, INC. 342 MADISON AVE., NEW YORK

Lighting Authorities Since 1898 HOLOPHANE CO., LTD., 385 YONGE ST., TORONTO, CAN.

MANUFACTURERS' LITERATURE

Publications mentioned here are all 8½ x 11" unless otherwise noted, and will be sent free upon request. When writing for literature, please mention PENCIL POINTS.

HANGAR DOORS. Canopy doors, crane entrances, hangar doors, large doorways of all kinds. 8 pages. Byrne Doors, Inc., 1150 Griswold St., Detroit, Mich.

ROOFING, SIDING. APS (Asphalt Protected Steel) siding and roofing for industrial buildings. 12 pages of technical data and sectional details, May, 1942. Levinson Steel Sales Co., 33 Pride St., Pittsburgh, Pa.

TIMBER CONSTRUCTION. Manual of design and load data on timber connectors. 16 pages, A.I.A. File No. 19-B, Supplement No. 6, printed. Timber Engineering Co., 1337 Connecticut Ave., N.W., Washington, D. C. *Also available—8-page booklet, A.I.A. File No. 19-B—installing Teco timber connectors in light and heavy timber structures; 12-page booklet, A.I.A. File No. 19-B—modern timber roof trusses; 24-page catalog, A.I.A. File No. 19-B, December 1941, designing timber connector structures.*

CONSTRUCTION. Pictorial presentation of use of Q-Panels in a modern black-out airplane manufacturing plant. 24 pages. Four blue-print type pages show architectural treatment for a blackout building and a fenestrated building. H. H. Robertson Co., Pittsburgh, Pa.

GYPSUM LATH. Information on sizes, weight, fire resistance ratings, sound transmission, insulation, suggested specifications for the three types of gypsum lath (plain, perforated, insulating). 12 pages, A.I.A. File No. 20-B-3. Gypsum Association, 211 W. Wacker Drive, Chicago, Ill.

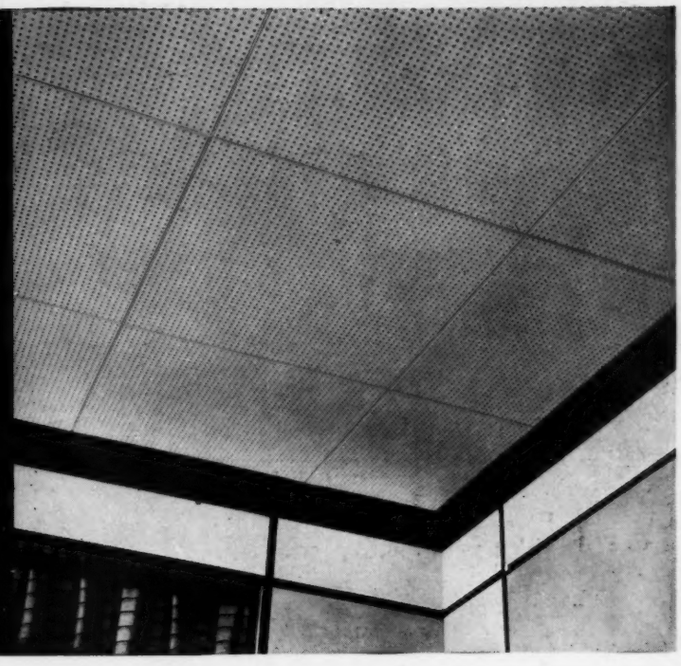
BLACKOUT. Methods of handling four typical blackout problems—windows, skylights, doors, and truck loading platforms. The Celotex Corp., 919 N. Michigan Ave., Chicago, Ill.

CEMENT PAINT. Information on the painting of concrete, stucco, masonry. 8 pages. Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio.

(Continued on page 122)

TRANSITE ACOUSTICAL PANELS

A fireproof, permanent acoustical material that is unaffected by moisture and adaptable to practically any requirement



Description: This product utilizes Transite (a Johns-Manville asbestos-cement product) to provide the finished surface for an acoustical treatment which is permanent, incombustible, and completely unaffected by moisture. The perforated Transite facing is backed by a rock-wool sound-absorbing element, a separate unit, which may be installed in any desired thickness and efficiency.

Advantages: This construction permits unusual flexibility and adapts Transite Panels to practically any acoustical requirement. As an office-quieting treatment, for example, they assure relief from distracting noise at low cost. The country's largest radio stations, too, have depended for years on this material to provide the correct acoustical background for high fidelity broadcasting. In auditoriums and music rooms it assures proper hearing conditions for the presentation of speech and music. And because Transite is unaffected by humidity, moisture and corrosion, it is also ideal for the treatment of swimming pools, kitchens, gymnasiums and other areas where surfaces are exposed to severe conditions.

Naturally, a material so durable requires virtually no maintenance except ordinary cleaning. Transite Panels may be painted to conform with any color scheme and to provide an acoustical treatment of pleasing architectural appearance. Painting does not reduce sound-absorbing efficiency.

AUDITORIUM, New England Mutual Life Insurance Company Building. The ceiling of square-edge Transite Panels provides correct acoustics and is in perfect keeping with the dignified treatment of this beautiful interior.

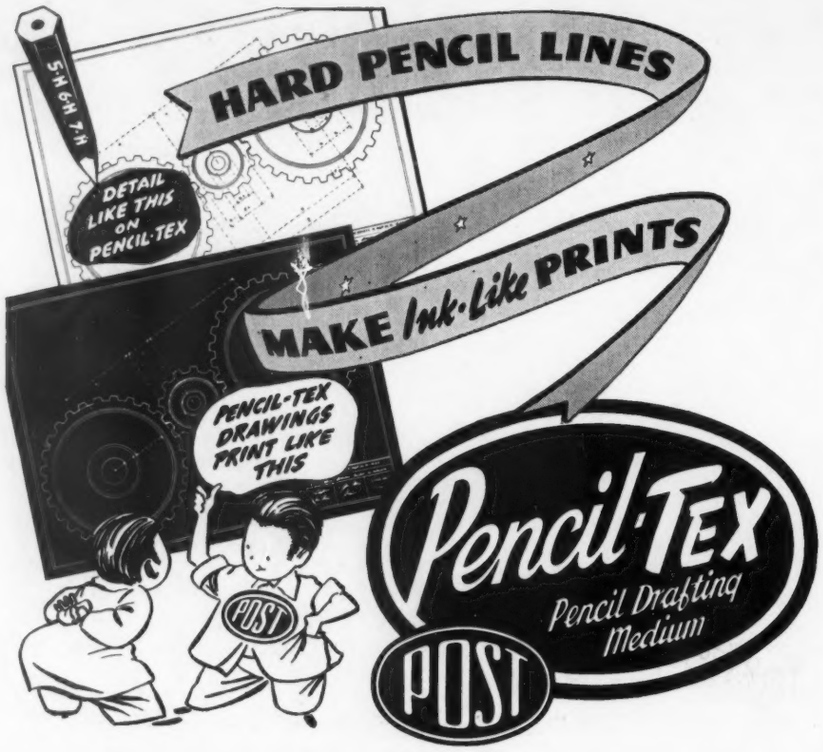
Application: In applying Transite Acoustical Panels, the sound-absorbing element is first installed between wood furring strips, after which the Transite facing is securely nailed to the furring. No critical metals are involved in application.

Sizes and Colors: Transite Acoustical Panels are furnished in units of 12″ x 12″, 12″ x 24″, 24″ x 24″ and 24″ x 48″. Thickness (exclusive of sound-absorbing element) is 3/16″. Standard finishes are cream, white and natural Transite gray.

FOR COMPLETE DETAILS: See Sweet's Catalog, or write for Brochure AC-26A, Johns-Manville, 22 East 40th Street, New York, N. Y.

Johns-Manville

PIONEERS IN SOUND CONTROL



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POST

(Continued from page 118)

FLUORESCENT LIGHTING. Features of the Compco rectified fluorescent lighting unit for industrial applications. 4-page folder, in color. Commercial Metal Products Co., 2251 W. St. Paul Ave., Chicago, Ill.

HOME OF THE FUTURE. Five booklets bring to the public the concepts of noted architects and engineers on the home of the future. The booklets present the prefabricated house designed by *Norman Bel Geddes*, the conventional exterior but prefabricated interior units designed by *Paul Nelson*, the designs created around the "kitchenless" house suggested by *William Hamby*, the factory-fabricated house designed by *Walter Dorwin Teague*, and the all-metal Dymaxion unit designed by *Buckminster Fuller*. Revere Copper & Brass, Inc., 230 Park Ave., New York.

AIR CLEANER. Application of the electrostatic principle to clean ventilating air. 24 pages, 5½ x 8¼, Bulletin B-2187. Westinghouse Electric & Mfg. Co., 1216 W. 58th St., Cleveland, Ohio.

CONCRETE CONSTRUCTION. Third edition, January, 1942, "Manual of Standard Practice," completely revised, 64 pages, A.I.A. File No. 4-E-2. Free to engineers and architects. Extra copies, 20 cents. Concrete Reinforcing Steel Institute, Builders Bldg., Chicago.

GLUED PREFABRICATED HOUSES. Advantages of glue for shop assembly of prefabricated houses, what type of glue to use in terms of Government specifications. 6 pages. A.I.A. File No. 19-M (new number), April, 1942. Casein Co. of America, 350 Madison Ave., New York.

RADIATORS AND BOILERS. Revamped catalog has latest information for current market conditions. Only the slim tube radiators now permitted by WPB are shown. Included: New IBRM coal-firing conversion factors; increased ratings for commercial cast iron boilers recently adopted by NAHPACC. National Radiator Co., 221 Central Ave., Johnstown, Pa.

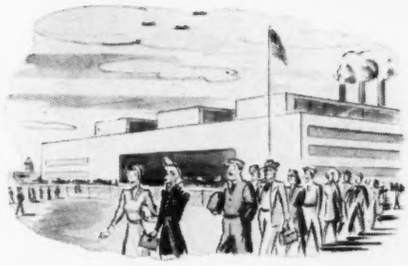
TEMPERATURE REGULATORS. Self-operated temperature regulators for water heaters and industrial process applications. Bulletin No. 600, March, 1942, A.I.A. File 29-D-21, 16 pages. Sarco Co., Inc., 475 Fifth Ave., New York, N. Y.

(Continued on page 124)

HOW SOUND CONTROL HELPS NATIONAL HEALTH AND MORALE

TO take care of the families of a huge army of war workers, new schools, hospitals, and other community buildings must be built—or existing ones enlarged—in hundreds of defense centers throughout the nation.

Municipal officials in such war production areas know that correct sound control in these public buildings pays big dividends in health, comfort and efficiency—keeps workers and their families happier, and helps speed the production of materials that will win the war. Naturally, they look for the best way to provide these advantages at lowest cost to the taxpayers—and many have already learned they always get the right answer from



Gold Bond Sound Control Research and Service.

If you're in a defense area, don't overlook these opportunities. And before the plans are completed, call in the Gold Bond acoustical distributor in your community. He has all the products and experience of Gold Bond Sound Control Research and Service at his disposal. He can suggest new construction ideas that will help you cut costs. He can help you choose the *right* materials—and supervise the kind of installation that means better results.

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Consult Sweet's, or write direct for specifications on all Gold Bond sound control materials. National Gypsum Company, Buffalo, N. Y.

Architect, Rial T. Parish. *Acoustical Distributor, Myron Cornish*

THE CAFETERIA IN FAIRMONT HIGH SCHOOL, DAYTON, OHIO. In this high school restaurant ceiling, Gold Bond Econacoustic provides a durable, verminproof, decorative tile that helps insulate as well as lower noise levels—and does both at one low cost.

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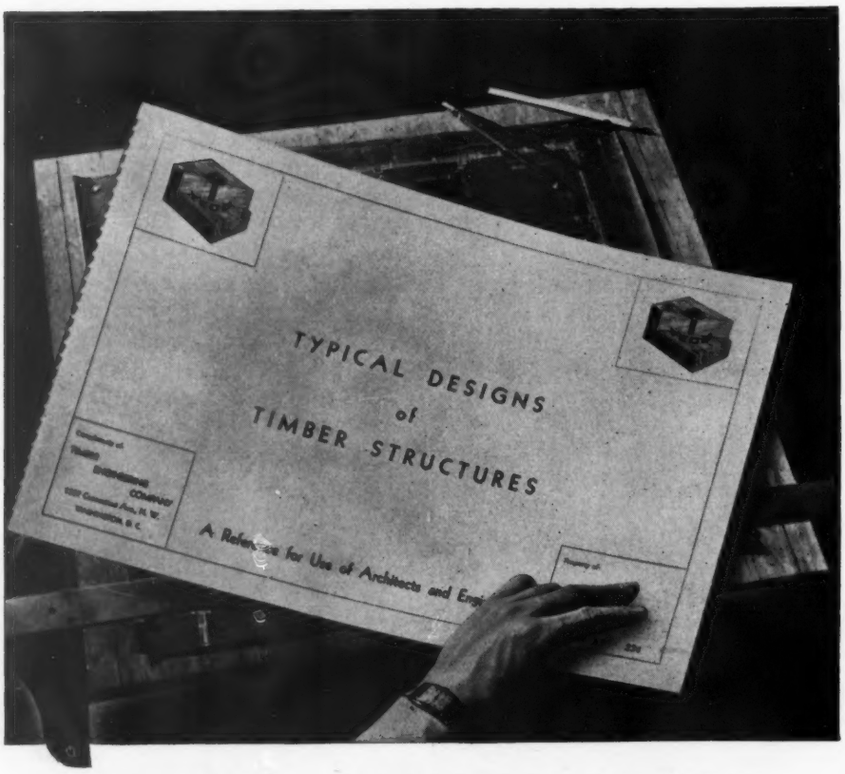
(Continued from page 122)

DRINKING FOUNTAINS. Vitreous china, vitreous enamel, automatic, non-automatic drinking fountains for commercial and institutional use. 24 pages, Catalog No. 420, Jan. 1942. Halsey W. Taylor Co., Warren, Ohio. *Also available—16-page catalog on electric cooler fountains.*

GRATINGS. Safety steps and gratings for walks, platforms, stairs, in buildings, ships, power plants. 6 pages, A.I.A. File No. 14-P-21, May, 1942. Borden Metal Products Co., Box 172, Elizabeth, N. J.

ELECTRIC FANS. 100 types of fans, with complete data on construction features and performance. Catalog X4549, 28 pages, May, 1942. Emerson Electric Mfg. Co., St. Louis, Mo. *(A pocket-size catalog, 24 pages, 3⅜" x 6⅜", No. X4514, contains the same information.*

ASPHALT TILE. "Ideas for Decorative Floors," a 12-page catalog, in color, presents available floor patterns in asphalt tile flooring for commercial and residential use. February, 1942. Johns-Manville Corp., 22 E. 40th St., New York.



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GOVERNMENT PUBLICATIONS

RAT PROOFING BUILDINGS AND PREMISES; by James Silver, W. E. Crouch, and M. C. Betts, 1942. ii + 26 p. il. (Interior Dept. Conservation bulletin 19.) Supersedes Farmers' bulletin 1638, issued 1930 by Biological Survey Bureau. (Agriculture Department.) Paper. I 1. 72:19. From Superintendent of Documents, Washington, 10c.

CONCRETE. Reinforced concrete construction. Revised Dec. 15, 1941. (1941.) 4 leaves, 4° (Technical circular 3; Technical Division.) FL 2.17:3. Federal Housing Administration, Washington, free.

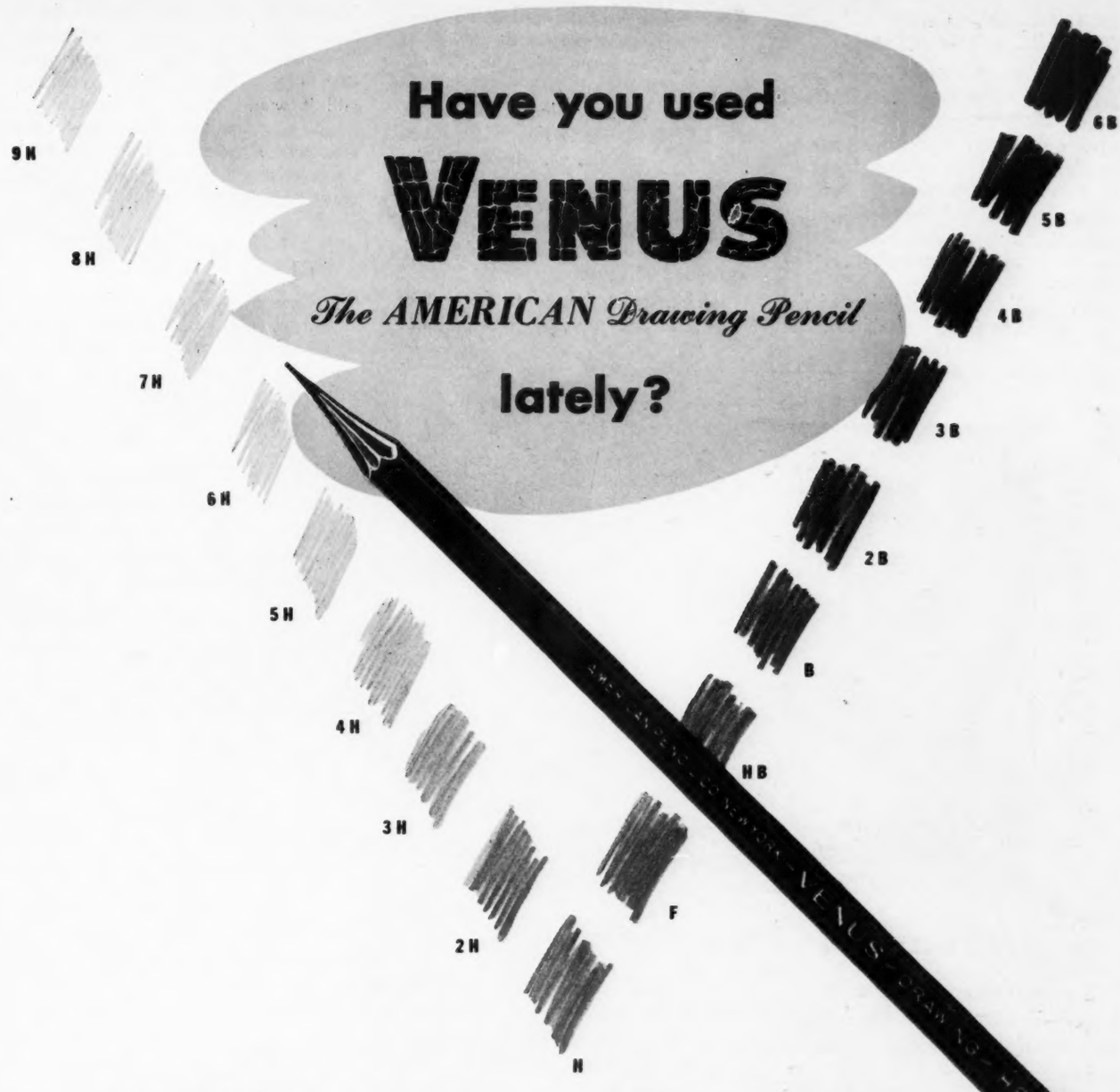
DWELLINGS. Property standards and minimum construction requirements for dwellings located in southern California district submitted for mortgage insurance under title 1, class 3, title 2, sec. 203, and title 6, sec. 603, of national housing act. Revised Jan. 1, 1942. (1941.) (1)+1—76+98—112 p. il. (FHA form 2325) FL 2.2:P 94/942. Federal Housing Administration, Washington, free.

URBAN REDEVELOPMENT. Problem of urban redevelopment; by Earle S. Draper. (1942.) 7 p. 4° (From Insured mortgage portfolio, 4th quarter, 1941.) FL 2.12/a:Ur 1. From Federal Housing Administration, Washington, free.

PLUMBING. Emergency plumbing standards for defense housing. Feb. 1942. Cover title, ii+30 p. il. Pr 32.4302:P 73. Defense Housing Coordination Division, Office for Emergency Management, Washington, free.

FLOOR COVERINGS FOR LOW-COST HOUSING. Performance test of floor coverings for use in low-cost housing: Part 4. Building Materials and Structures Report BMS 80, issued March 2, 1942, 21 pages. From Superintendent of Documents, Washington, 15c.

HARDWOOD AND PLYWOOD. Recommended revision of Commercial Standards CS35-31, covering hardwood and Eastern Red Cedar plywood, mimeographed. May 1, 1942, 22 pages. TS-3239. From National Bureau of Standards, Washington, free.



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FOUILHOUX HEADS BUILDING CONGRESS

Members of the Building Congress and other construction and architectural agencies should begin to think about post-war planning, to be done in co-operation with Government bureaus, said *J. André Fouilhoux* at the annual election of the New York Building Congress, held May 6, at which time he was elected president of the Congress.

Mr. Fouilhoux is a member of the firm of Harrison, Fouilhoux & Abramowitz which designed the Clinton Hill housing project in Brooklyn, N. Y. (See pages 147-149, March issue, PENCIL POINTS.)

Other officers elected included *John J. Brennan, Arthur C. Holden, Alfred Rheinstein, L. Andrew Reinhard*, vice presidents; *John W. Pickworth*, treasurer; *William Arthur Payne*, secretary; *Robert L. Mauchel*, director; *J. Archer Turner*, vice president and director.

Pointing out that when the cost of new housing, utilities, transportation facilities, all of which already exist in New York, and the cost of moving thousands of new families to new plant sites is added together, Mr. Fouilhoux said it would be cheaper in the end to give war contracts to the New York area where there are architects, engineers, contractors, and skilled laborers ready to do their share of the job.

MICHIGAN ARCHITECTS RE-ELECT PALMER

C. William Palmer, Detroit architect, was re-elected president of the Michigan Society of Architects at the Society's recent annual convention. Other officers for the coming year are: vice presidents, *John C. Thornton*, Detroit; *James A. Spence*, Saginaw; *Harry L. Mead*, Grand Rapids; secretary: *Earl W. Pellerin*, Detroit; treasurer: *Lawrence E. Caldwell*, Detroit; executive secretary, *Talmage C. Hughes*, Detroit; directors: *Chester L. Baumann, Branson V. Gamber*, both of Detroit.

CAMOUFLAGE EXHIBIT

An exhibition, "Camouflage for Civilian Defense," is being shown at the Addison Gallery of American Art, Phillips Academy, Andover, Mass., during the month of June. It has been constructed by the Museum of Modern Art, New York, in collaboration with the Gallery, with material assistance being given by the Pratt Institute, Brooklyn, N. Y., and the Army Engineer Board at Fort Belvoir, Va.

The exhibition explains practical measures for protective concealment and shows the necessity of working with trained personnel in order to obtain satisfactory results.

HOUSING COURSE

The housing of war workers is being studied in a course held in Columbia University's summer session which began May 23. The course, under the direction of *Professor B. R. Andrews*, deals with the responsibility of schools in establishing good urban, village, and rural housing.

LANDSCAPE COURSES

A series of summer courses in landscape architecture open to men and women during the July 6-31 period, have been announced by Lowthorpe School of Landscape Architecture, Groton, Mass.

The school has also announced that three regional scholarships will be awarded. Each scholarship carries a stipend of $3,900, covering expenses for room, board, and tuition for three and one-half years' study. Further information may be had from *John A. Parker*, Director of the School.

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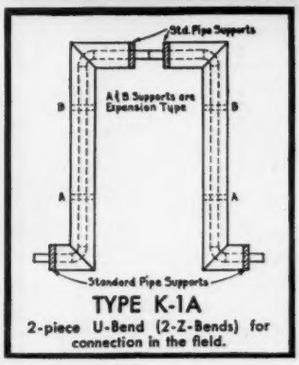
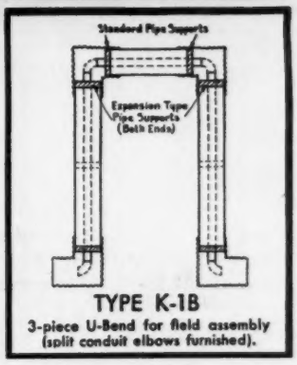


TYPE K-1A
2-piece U-Bend (2-Z-Bends) for connection in the field.



TYPE K-1B
3-piece U-Bend for field assembly (split conduit elbows furnished).

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BOOKS AND PERIODICALS

In the nature of materials the buildings of Frank Lloyd Wright, **by Henry-Russell Hitchcock ($5.00, 103 pp. 9"x9" and 413 plates, with chronology of buildings and projects, index—Duell, Sloan & Pearce, Inc., 270 Madison Ave., N. Y.)**

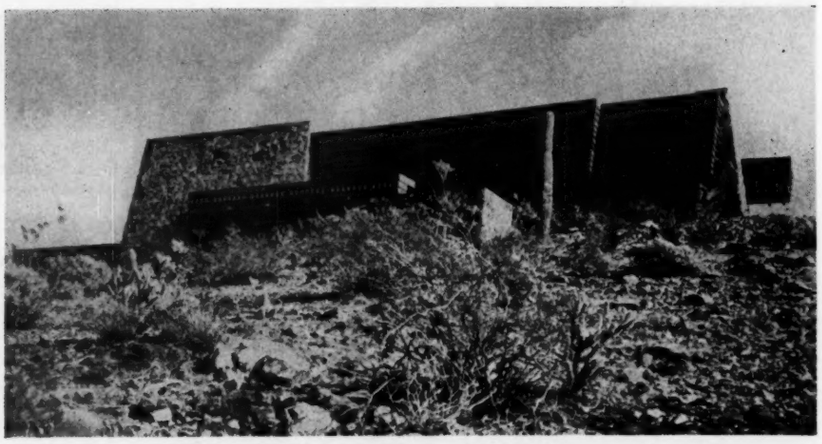
At last!

Mr. Hitchcock far exceeds the demands of an adequate catalogue for the recent Wright exhibition at the Museum of Modern Art in this presentation of America's 20th Century *Titian.** His sympathy for all of the Wright work is surprising.

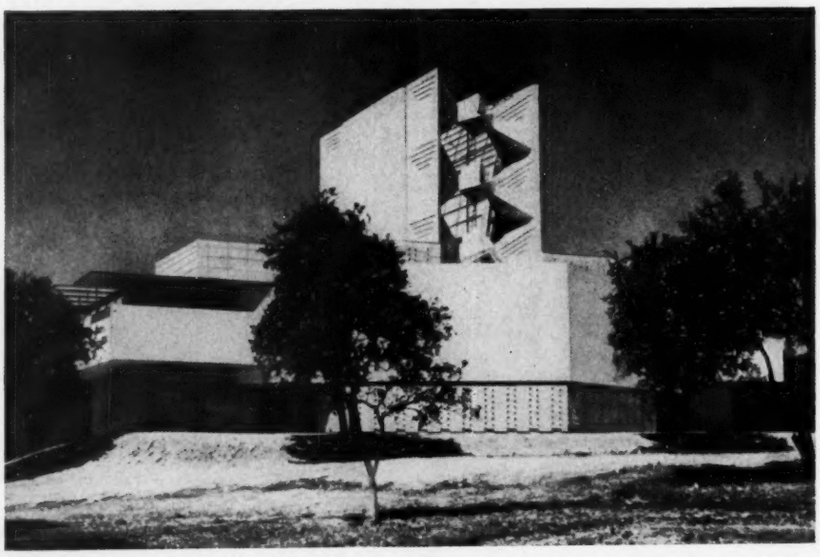
Study of this volume can only increase one's respect for the genius of Wright. The apparent faults of the early buildings seem justifiable as experiments in the development of architecture. The theory of "space plaiding" expressed in the *Waller Dining Room* of 1899 controls the *Kaufmann House* of 1937: the engineer who built an "impractical" (though still standing) windmill in 1896 will yet see his *Crystal Heights* sparkling in Washington.

Wright's complete knowledge of materials and their nature may account for the lack of public acceptance of his work. Materials may well overpower the personalities that live with them

(Continued on page 130)



Rose Pauson house, Orange Road, Phoenix, Arizona, was built in 1940



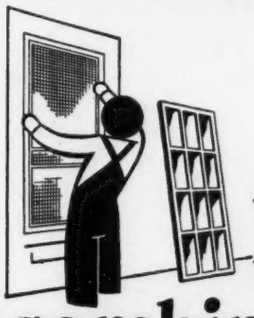
Ann Pfeiffer Chapel, Florida Southern College, in Lakeland, also 1940

Edward C. Waller Dining Room, Auvergne Place, River Forest, Ill., Built in 1899

*Of Wright, as of Titian, we may believe that in the eighth decade of his life and the sixth of his architectural career more work lies ahead which will equal in every way what is past.

H-R. H.

-protection in the public interest



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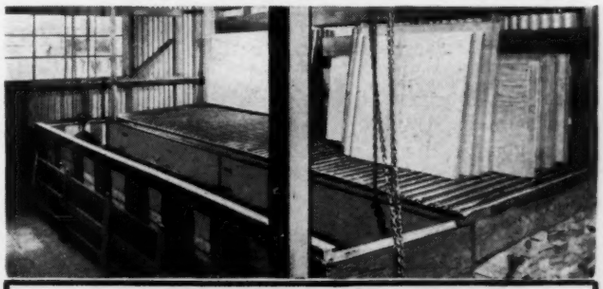

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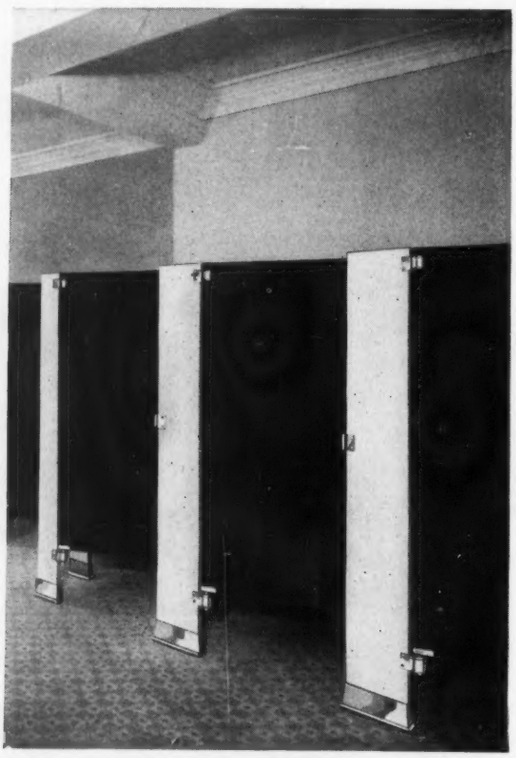
(Continued from page 128)

and only in the published interiors of *Taliesin* is there sufficient humanized relief from the construction elements and the sweep of the out-of-doors to make a home. But that there are not enough imaginative Americans to inhabit *all* of Wright's houses seems incredible!

The receipt of this volume bears out our hope, expressed in the report on the earlier Gutheim volume of this series (page 66, PENCIL POINTS, November, 1941) that a full appraisal of Wright would be made available to all. The autobiography still must come —scheduled for publication in the fall. The format, while following that devised by Wright for the Gutheim volume, is more sympathetic to the material here presented. The scholarly text continually refers to the plate section and the chronological arrangement makes for easy study. The expanded titles elaborate the text rather than quote it. *Our only regret* is that this book cannot be entitled "Volume 25, Biennial American Publication of the Work of Frank Lloyd Wright." Could this be true, practicing architects would be now be assisting the creation of *Usonia*.

JOHN C. SEWARD

For Buildings of Today and Tomorrow



●The selection of WeiSteel Flush Doors and Hardware for the new home of the New England Mutual Insurance Co. (Cram and Ferguson, Boston, architects) is one more evidence of the striking manner in which these doors fit into modern building techniques.

This combination of door and hardware—an idea originated by Weis—for marble, glass and similar partitions, simplifies specifications and purchase, simplifies delivery and construction for the contractor, and centers in one manufacturer responsibility for unified design and installation. Gravity hinge mounting eliminates strain on marble or glass stiles... quiet operation with no slamming... no warping or swelling... no absorption of odors... smooth surface assures utmost sanitation and easy cleaning... color treatment to harmonize with any decorative scheme.

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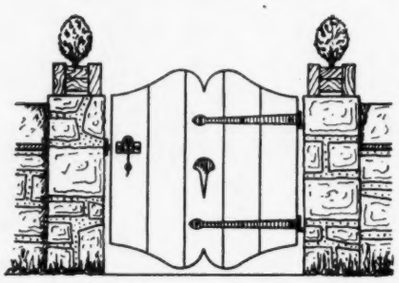
WEISTEEL
FLUSH DOORS AND HARDWARE

HOUSE CONSTRUCTION DETAILS, by Nelson L. Burbank. ($3, 306 pages, 8 ½" x 11 ¼" —Simmons-Boardman Publishing Corp., 30 Church St., New York)

This is a book that every architect should have as a curiosity since it comprises the most unusual pot-pourri



•COLONIAL•

of good taste and bad taste, excellent and terrible draftsmanship, facts and half facts, agreement and contradiction ever put between covers. This is not to say that the tome is lacking in information because within its 306 pages there are many useful facts. The entertainment you will get out of the book is all thrown in extra. The illustration will show you exactly what we mean.

D. G.

SPACE FOR TEACHING, by William Wayne Caudill. (An illustrated bulletin of the Agricultural and Mechanical College of Texas, 120 pages, 8½" x 11"— for copies address Texas Engineering Experiment Station, A. & M. College of Texas, College Station, Texas)

This is a well and attractively presented example of special pleading for a special solution of a special problem: namely, the elementary school in the small city, town, village, or "consolidated" rural community, where land values are low enough to be almost inconsequential (and the climate that of the Garden of Eden).

Despite this apparent limitation of scope, the discussion of the relationship between school design and the modern educational trend, *with emphasis on flexibility*, is a thoughtful presentation of the subject which should stimulate architects and members of school boards, teaching, and administrative staffs. When one considers the *comparatively few examples of American school architecture that cannot be condemned* for their extravagance or banality, this modest essay seems both inspirational and refreshing.

The architectural solutions indicated are of the ingeniously simple type of space-enclosure-shelter units more or less strung together on tenuous circula-

(Continued on page 132)

No more DOOR CLOSERS

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Chicago, Illinois

"Why take 12 ounces when you can have a pound?"

Can you expect more from one type of floor material than from another? Just consider that Nairn linoleum alone meets *all four* of the basic specifications for the modern floor:

1. EYE APPEAL—Unequalled beauty and wide variety of color offer unlimited freedom of design. Patterns that are Color Correlated—with each other and other decorating materials.

2. LONGER WEAR — Nairn linoleums not only meet, they *exceed* U. S. Government specifications on *every* point. Built-in ruggedness that spells long-range economy.

3. RESILIENCE — Quiet, "foot-easy" Nairn floors are sound absorbing, sound deadening . . . "comeback" with a minimum of marring after indentation.

4. CLEANLINESS AND EASY MAINTENANCE — One-piece construction leaves no dirt-catching cracks and joints . . . reduces maintenance time and cost to a minimum. Positive germicidal properties. No splinters! No "dusting"!

Valuable facts to keep in mind when you buy floor-covering —especially in these times. Why take less than full value—a floor that lacks *any* of the four musts of the modern floor? *Nairn linoleum has "all four"—gives you 100% value.*

AND WHEN IT COMES TO WALLS, it's likewise valuable to know why the swing is to Nairn wall linoleum. It lasts as long as the building, and will never fade, stain or dent. Wide range of patterns and colors! Nairn floor and wall linoleum have full guarantee when installed according to specifications.

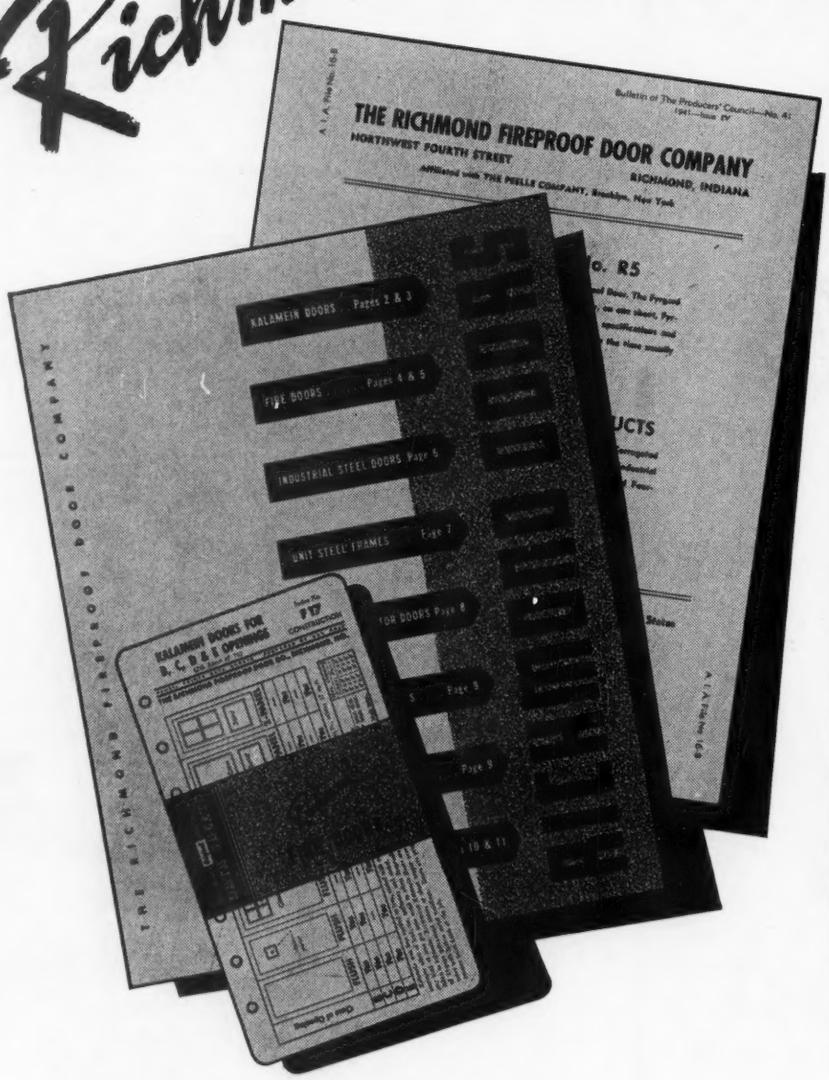
CONGOLEUM-NAIRN INC., KEARNY, N. J.

• *An ideal setting here for the Home Economics class of Calhoun Junior High School at Homestead, Pa. The floor and the wainscot are colorful, easy-to-clean Nairn linoleum.*

Nairn linoleum —the floor that gives you "all 4."

NAIRN LINOLEUM
FLOORS AND WALLS

Richmond **FIRE DOOR FACTS**


THE RICHMOND FIREPROOF DOOR COMPANY
NORTHWEST FOURTH STREET
RICHMOND, INDIANA
KALAMEIN DOORS Pages 2 & 3
FIRE DOORS Pages 4 & 5
INDUSTRIAL STEEL DOORS Page 6
UNIT STEEL FRAMES Page 7
KALAMEIN DOORS FOR R. C. B. & S. OPENINGS

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NEW FREE

(Continued from page 130)

tion. The standards and dicta often verge on the impractical but the author makes out a very plausible case for a minimum first cost of building (and consequently lower carrying charges and shorter amortization) in view of the fact that evolving pedagogical methods will *inevitably speed obsolescence.* **GERALD A. HOLMES**

PERIODICALS

ENGLAND

Consideration of the contemporary architectural magazines being published "under fire" is most fittingly prefaced with a Sincere Tribute to those who have determinedly published, month after month, the splendid English journals of professional information and opinion. Always welcomed for their selective discussion and pictorial elegance, these are now become symbols of editorial courage—of faith that There Will Always Be Architects.*

THE ARCHITECTURAL REVIEW

The continuing monthly supplement, *Destruction and Reconstruction*, counts the irreparable toll of bombing damage to Britain's architectural monuments—and is the most dramatic section of this magazine. Scars of Portsmouth, Plymouth, and Manchester are shown in the May issue, just received. In the spirit of "counting the treasures we fight to preserve," there are illustrated articles on Leamington Spa, tagged "*Romantic Urbanism*"; England's most progressive early 20th Century buildings (reviewed by *Nikolaus Pevsner*); another of the Review's crisp vignettes of 19th Century Architecture (the *Peter F. R. Donner* series). From overseas there is a New South Wales house by *W. Watson Sharp*, in the contemporary idiom still rare in Australian architecture.

THE ARCHITECTS' JOURNAL

One of the first publications to concern itself with *Post-War Planning*, and the grave implications of war's impact on the social and political structures, the Journal devotes most of its May 7 issue to extracts from the House of Commons debate on the second reading of England's *Planning Bill.* A week later, in the second issue for May, the argument for planning flickers best in an observation by "Astragal" that people seem to want spacious, splendid cities of "a scale in keeping with the grandeur of 20th Century civilization." The major portion of the issue is de-

(Continued on page 134)

*Though not reviewed, THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS and THE ARCHITECTURAL ASSOCIATION JOURNAL continue to appear regularly, despite the most drastic difficulties in publication.

HALLOWELL

POSTURE-BACK STOOLS

Heights 17" to 21", 22" to 26", 27" to 31", 32" to 36" (4" screw height adjustment on each); Spring posture-back, adjustable; Hinged back rest. Welded throughout. Finish: rich olive green enamel.

Fig. 1266
Pat. Pend'g.

THEY HAVE TO BE GOOD!

to win such universal acclaim.

And—here's why:
Just the right posture for working long hours in comfort.

Adjustable spring-posture back gives real support, yet compensates for your movements.

Modern, full welded construction insures lifetime service.

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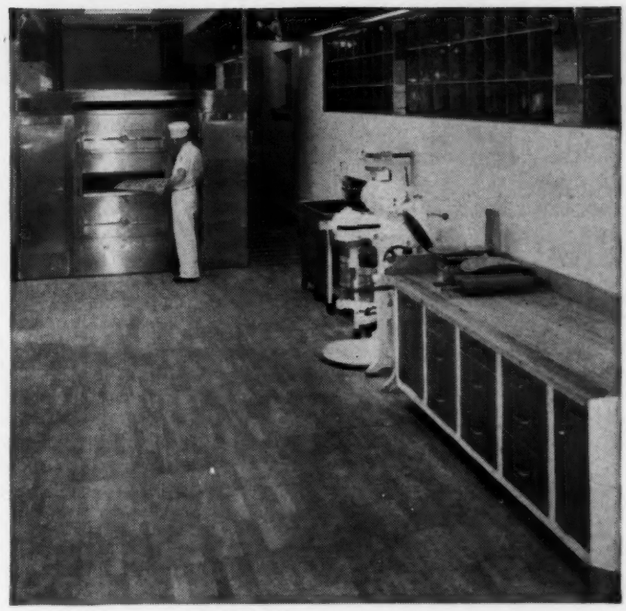

Today's Trend in Industry is to MAPLE FLOORS

Hard Maple is getting the call today in plants from Coast to Coast.

Why? Because it's a comfort floor, stands up under heavy service twenty-four hours day after day. Helps speed production, yet may actually cost less.

Warm and dry underfoot, it adds to comfort, protects health. Resilient, it slows up fatigue, while its lasting smoothness speeds up work and traffic, creates no dust injurious to machinery. All to the benefit of production.

Surprisingly, though, Hard Maple often costs no more—most often, less in the long run. So tough-grained and free from slivering and splintering, it takes abuse without showing it; usually gives more years of service.

Today, more than ever, industry needs Hard Maple—**MFMA** Northern Hard Maple, in strips or blocks. See Sweet's, Sec. 11/82.

Write for complete information.

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1785 McCormick Building, Chicago, Illinois

Floor *with* MFMA Maple
REG. U.S. PAT. OFF.
(NORTHERN HARD)

(Continued from page 132)

voted to a review of the *174th Royal Academy Exhibition* which impressed *Ralph Tubbs*, A.R.I.B.A., as far from "what people want" and led him to the gloomy conclusion that English architects exhibit an "utterly inorganic approach to architecture."

THE ARCHITECT AND BUILDING NEWS

Getting down to cases in Post-War Planning, we find in this magazine's issue of April 24 an *Exploratory Survey of Planning Control*, by *S. Roland Pierce*, F.R.I.B.A., intelligently illustrated; as well as excerpts collected by *George Hicks, M.P.*, on "*The Occupier*" (or typical tenant of housing projects).

ARCHITECTURAL DESIGN AND CONSTRUCTION

Wartime building and expedients are discussed frankly in the April issue of this magazine: the subjects ranging from "*Canteen Planning and Equipment*" to "*Camouflage*" and political appointments affecting the Architects' war effort.

CANADA

JOURNAL OF THE ROYAL INSTITUTE OF CANADA

Of immediate value is the impressive compilation of *ARP Information* in the May issue of this Journal—made more valuable by an appraisal of material previously published on such subjects as "*Theory of Civil Defense*," "*Concealment*," "*Blackout*," "*High Explosive Bombs*," "*Structural Elements And Design*," "*Building Protection*," "*Shelters*," etc.

ARGENTINA

REVISTA DE ARQUITECTURA

The latest copy of this magazine to come to the Editor's desk (December, 1941) understandably concerns itself less with wartime activity. But the lead article is one increased in value by subsequent events—"*Construction of Aerial Bases on the Coast*," translated by *Architect Roberto J. Leiva* from an exhaustive report of H. Barelmann of the German Air Ministry, and should interest Engineers as well as Architects concerned with this specialized defense problem. The principal building presented in the issue is the *Sanatorio Anchorena* by *L. Oleazza* & *Ernesto E. Vautier, Architects.* An example of coordinated planning based on principal recommendations of the International Hospital Congress. Plans and a generous selection of photographs are shown. The issue also includes a dance studio, a community of *Small Homes for Executive Personnel* of the YPF Destileria Fiscal, in San Lorenzo, and a selection of contemporary houses and an apartment building—as well as the prize winning drawings in a *Lighting Competition.*

UNITED STATES

THE AMERICAN CITY

Some grasp of the complexity of the wartime program in which cities may participate—planning and zoning by no means least in importance—may be gained by architects in this widely varied record of city activities. Pertinent is a statement from *Rear Admiral A. J. Hepburn* on the relationship of the Navy's wartime developments to the long-range expansion of cities. To stretch the imagination, *Katherine Perring* and *Melville C. Branch, Jr.*, contribute predictions on *Urban Land Use*, as cities are adapted to increasing air travel.

THE PLANNERS' JOURNAL

Architects who are sincere in their intention to learn about planning cannot be urged too strongly to acquaint themselves with some of the technical literature in the field, well represented in this forthright publication. The January-March issue is devoted to *Surveying* and *Analyzing Land Use.*

"*It's Wheeling Steel*"

This *Free Handbook* Should Be In Every Industrial Planner's Office

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